

ELKHART, INDIANA
INDUSTRIAL PRETREATMENT PROGRAM
PHASE I
REPORT

Prepared by:

Snell Environmental Group, Inc.
1120 May Street
Lansing, Michigan 48906

December, 1979



Engineering · Planning · Research

December 10, 1979

Board of Public Works and Safety
Municipal Building
229 South Second Street
Elkhart, Indiana 46514

ATTN: Mrs. Maxine Miller,
President

Dear Members:

In accordance with the Engineering Agreement between the City of Elkhart and Snell Environmental Group, Inc. (SEG), dated April 3, 1979, we are pleased to present to you the "Elkhart Industrial Pretreatment Program - Phase I Report and Appendices." We believe this report and appendices satisfy all the requirements defined in the "Engineer's Scope of Services" which is presented in Appendix D.

A summary of this report as well as conclusions and recommendations are presented in Chapter 1. The body of the report offers detailed information on Phase I of the pretreatment program. Industrial information specific to the "Master List" of industries is presented in Attachments A through E. The Appendices, bound under separate cover, contain regulations, correspondence, industrial lists, and other pertinent documents.

We hope this report meets with the City's approval, and we appreciate the opportunity to be of service to the City of Elkhart and the citizens it serves.

Very truly yours,

SNELL ENVIRONMENTAL GROUP, INC.

Timothy H. Sullivan
Project Engineer

Basim A. Sayigh, Ph.D., P.E.
Project Manager

THS/BAS/cma

cc: Mr. Worth Yoder,
Assistant City Attorney
Mr. Jim Lingard,
WWTP Superintendent

ACKNOWLEDGEMENTS

During the course of preparing this document, valuable assistance was provided to SEG by several individuals. The industrial representatives provided fundamental information essential to this report and their cooperation is gratifying. Also, the following individuals contributed significantly to the successful completion of this report and their efforts are greatly appreciated.

Mrs. Maxine Miller, City Controller

Mr. George Lutz, City Engineer

Mr. James McCaslin, City Attorney

Mr. Worth Yoder, Assistant City Attorney

Mr. Joseph Manfredi, Industrial Inspector

Mr. Sam Lyle, General Manager of the Elkhart Department of Water Works and his staff

Mr. James Lingard, Superintendant of the Elkhart Wastewater Treatment Facility and his staff.

PROJECT PERSONNEL

This report, the Elkhart Pretreatment Program - Phase I, was prepared by Snell Environmental Group, Inc., in Lansing, Michigan. The main contributions were provided by the following:

John C. O'Malia, P.E., Vice President

Basim A. Sayigh, Ph.D., P.E., Project Manager

Timothy H. Sullivan, Project Engineer

Ralph Nuerenberg, Project Engineer

Pratap Rajadhyaksha, Project Engineer

Conan J. Doyle, Project Draftsman

Terri S. Poindexter, Technical Assistant

Cynthia M. Applegate, Project Typist

Jan Pashby, Secretary

Brenda Shuler, Secretary

TABLE OF CONTENTS

	<u>Page No.</u>
ACKNOWLEDGEMENTS	ii
PROJECT PERSONNEL	iii
LIST OF TABLES	vii
CHAPTER 1 - SUMMARY, CONCLUSIONS AND RECOMMENDATIONS	
1.1 Summary	1-1
1.2 Conclusions	1-1
1.3 Recommendations	1-4
CHAPTER 2 - INTRODUCTION	
2.1 General	2-1
2.2 Objectives and Requirements of the General Pretreatment Regulations	2-1
2.2.1 National Pretreatment Standards - Prohibited Discharges	2-2
2.2.2 National Pretreatment Standards - Categorical Pretreatment Standards	2-3
2.3 Elkhart Sewer Use and Rate Ordinance	2-4
2.4 "Attachment A - Special Conditions" to the NPDES Permit	2-7
2.5 Purpose of the Study	2-11
2.6 Scope of Work - Phase I	2-12
2.6.1 Task A: Identification	2-12
2.6.2 Task B: Notification	2-12
2.6.3 Task C: Preliminary Visitation, Sampling and Monitoring	2-12
2.6.4 Task D: Classification	2-12
2.6.5 Task E: Preparation of the Final Report	2-13
2.6.6 Time Schedule	2-13
2.7 Phase II - Federal Funding	2-13
CHAPTER 3 - INVENTORY OF CONTRIBUTING INDUSTRIES AND INDUSTRIAL DATA	
3.1 General	3-1
3.2 Inventory Stage - Industrial Costs	3-1

TABLE OF CONTENTS, (cont.)

3.2.1	Compilation of Original List	3-1
3.2.2	Preliminary Screening - Intermediate Lists	3-2
3.2.3	Further Evaluation - Master List of Industries	3-3
3.3	General Review of Existing Industrial Data	3-5
3.3.1	The Elkhart Segmented Facilities Plan	3-5
3.3.2	The EIS Industrial Waste Survey Analysis	3-6
3.3.3	Industrial Directory	3-8
3.3.4	Water Consumption Data	3-8
	3.3.4.1 Public Water Supply	3-8
	3.3.4.2 Private Well Water Supply	3-10
3.3.5	WWTP Sampling Data	3-12
3.3.6	Surveillance Program	3-12

CHAPTER 4 - NOTIFICATION OF INDUSTRIES

4.1	General	4-1
4.2	Industrial Questionnaire	4-1
4.3	Surveillance Letter and Program	4-2
4.4	Public Meeting with Industries	4-3
	4.4.1 General	4-3
	4.4.2 Attendance	4-3
	4.4.3 Proceedings	4-4
	4.4.4 Questions and Answers	4-8
	4.4.5 Closing Remarks	4-9

CHAPTER 5 - PRELIMINARY VISITATION, SAMPLING AND MONITORING

5.1	General	5-1
5.2	Industrial Operations	5-1
	5.2.1 Control Manholes	5-1
	5.2.2 Discharge Characteristics	5-2
	5.2.3. Plant Process Data	5-2
5.3	The Laboratory	5-3
	5.3.1 The Existing Facility	5-3
	5.3.2 Requirements for the Surveillance Program	5-4

TABLE OF CONTENTS, (Cont.)

CHAPTER 6 - CLASSIFICATION

6.1	General	6-1
6.2	Industrial Files	6-1
6.3	Data Compilation and Organization	6-1
6.3.1	The "General Information" Set of Charts	6-2
6.3.2	The "Water Supply and Wastewater Discharge Data" Set of Charts	6-4
6.3.3	The "Operational Characteristics" Set of Charts	6-6
6.3.4	The "Classification and Pretreatment Standards" Set of Charts	6-7
6.3.5	The "Sampling and Monitoring Requirements" Set of Charts	6-10
6.4	Industrial Map	6-12

LIST OF ATTACHMENTS

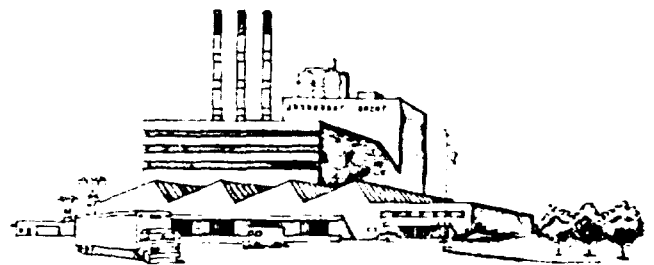
- ATTACHMENT A - General Information
- ATTACHMENT B - Water Supply and Wastewater Discharge
- ATTACHMENT C - Operational Characteristics
- ATTACHMENT D - Classification and Pretreatment Standards
- ATTACHMENT E - Sampling and Monitoring Requirements

FIGURE 1

LIST OF TABLES

<u>Table No.</u>	<u>Title</u>	<u>Page No.</u>
2.1	List of Twenty One (21) Industrial Point Source Categories Under Scrutiny by the EPA.	2-5
2.2	Toxic Chemicals List, "Noxious 65."	2-6
3.1	Industrial Pretreatment Program, Master List of Major Industries.	3-4
3.2	Summary - 30 Day Sampling and Monitoring Results, May 23, 1977 to July 1, 1977, Elkhart Segmented Facilities Plan.	3-7
3.3	E.I.S. Sampling and Analysis Data Summary.	3-9
3.4	List of Major Industries that have Private Water Wells.	3-11
3.5	WWTP Sampling and Analysis Data Summary.	3-13
3.6	Surveillance Program Data.	3-15
5.1	City of Elkhart, Industrial Surveillance/Pre-treatment Program Field Equipment List.	5-6
5.2	City of Elkhart, Industrial Surveillance/Pre-treatment Program Laboratory Equipment Requirements.	5-7
6.1	Breakdown of Employee Numbers at the Seventy Industries on the Master List.	6-3
6.2	Breakdown of Wastewater Flows at the Seventy Industries on the Master List.	6-5

**Summary ,
Conclusions and
Recommendations**



Chapter 1

CHAPTER 1

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This chapter summarizes the contents of this report and lists the conclusions and recommendations arrived at.

1.1 SUMMARY

This report is a documentation of many aspects of the industrial operations in Elkhart, Indiana. It covers all the tasks required under Phase I of the Elkhart Industrial Pretreatment Program. Chapter 2 discusses the objectives of the pretreatment regulations, the Elkhart Sewer Use and Rate Ordinance, the NPDES Permit requirements, the purpose and scope of Phase I work, and the possibility of Federal funding for Phase II. Chapter 3 covers the inventory stage including development of the industrial lists and the Master List of seventy (70) industries, and the review of all pertinent available data. Chapter 4 discusses the industrial questionnaire, the surveillance program, and the public meeting with industries. Chapter 5 discusses whatever is currently known about the industrial operations, and presents the laboratory requirements. Chapter 6 is where all the above information is summarized, condensed, and tabulated in five sets of charts.

Ten appendices are submitted under separate cover. They include the final rule of the categorized pretreatment effluent standards for the electroplating industries, pertinent sections of the Elkhart Sewer Use and Rate Ordinance, pretreatment requirements of the NPDES Permit, and all the industrial lists.

It is believed that this report meets all the requirements of the Engineer's Scope of Services under the contract entered between the City of Elkhart and SEG on April 3, 1979.

1.2 CONCLUSIONS

The following set of conclusions was arrived at:

1. The City of Elkhart is required to undertake an industrial pretreatment program as per the requirements of "Attachment A - Special Conditions" to the NPDES Permit (Section 2.4).
2. Currently, both the Federal Prohibited Discharge Standards (Section 2.2.1) and the Elkhart Sewer Use and Rate Ordinance (Section 2.3) control the Elkhart Industrial discharges into the POTWs. The Categorical Pretreatment Standards (Section 2.2.2) will also control the discharges, once said standards are promulgated. As of now, only the standards for the electroplating point source discharges have been promulgated (September 1979). Review of the Elkhart Sewer Use and Rate Ordinance in regards to Federal regulations is proposed for Phase II work.
3. At this time, seventy (70) industries comprise the Master List (Section 3.2.2). The Master List industries are industries whose wastewater effluents are in excess of 25,000 gpd or may contain toxic chemicals. Based on further investigation, other non-residential users may be added during Phase II, if deemed necessary. A separate file on each of the seventy (70) industries has been assembled. A map delineating each of the seventy (70) industries was prepared (Figure 1.).
4. A questionnaire was sent by the WWTP staff to sixty three (63) of the seventy (70) industries. Fifty one (51) replied (Section 4.2).
5. Fifty two (52) of the seventy (70) industries employ less than 200 people. Thirteen (13) employ more than 200 people. The numbers of employees in five (5) of the industries are currently unknown (Section 6.3.1).
6. It is currently known that at least fifty eight (58) of the seventy (70) industries have public water meters and eighteen (18) have private wells (Section 6.3.2).
7. Forty seven (47) industries on the Master List discharge less than 25,000 gpd of wastewater, nine (9) discharge between 25,000 and 100,000 gpd, four (4) discharge between 100,000 and 1,000,000 gpd, and one (1) discharges more than 1,000,000 gpd (Section 6.3.2).

8. Currently thirty nine (39) of the seventy (70) industries are classified as wet, and twenty one (21) are classified as dry (Section 6.3.4). Additional information is needed to classify the others.
9. Limited information is currently available on most of the seventy (70) industries especially in terms of the quality of their discharges and their operational processes and procedures.
10. The Elkhart WWTP routinely examines six (6) major industries on a continuous basis. They are CTS, Elkhart Products, Excel, Miles, NIBCO, and Whitehall (Section 3.3.5).
11. Thirty six (36) industries have provided information on the number(s) of their discharge pipe(s) to the POTWs (Section 6.3.3).
12. Twenty five (25) industries provided a sewer layout, and ten (10) provided a process schematic (Section 6.3.3).
13. Thirty five (35) industries reported on the raw materials they utilize in their operations (Section 6.3.3).
14. Only eight (8) industries reported some limited information on some form of pretreatment, restricted mainly to neutralization, precipitation, oil separation, and rinsing (Section 6.3.3).
15. Currently eighteen (18) of the industries are classified as major and two (2) as minor. Additional information is needed to classify the others (Section 6.3.4).
16. Except for the Hospital, all industries on the Master List are classified under "Division D: Manufacturing" of the Standard Industrial Classification (Section 6.3.4).
17. Representatives of twenty six (26) of the seventy (70) industries attended the public industrial meeting held on June 26, 1979 (Section 4.4.2).

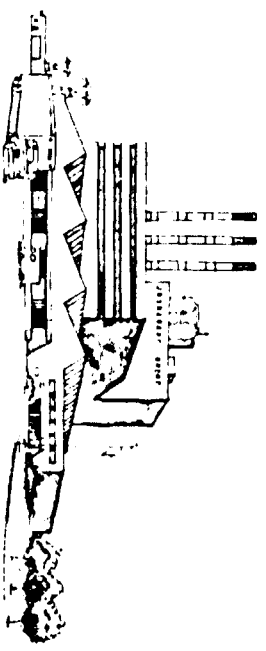
18. It is preliminarily estimated that \$220,000 (1980 estimates) are required for field and laboratory equipment necessary for undertaking the Industrial Surveillance Program. This figure is based on the 70 industries comprising the Master List (Section 5.3.2).
19. Much of the above information is subject to change once more data become available and available data is verified. This will be done during Phase II of the project.

1.3 RECOMMENDATIONS

Based on the conclusions listed above, the following recommendations were reached:

1. The City of Elkhart must establish an Industrial Pretreatment Program as mandated by Federal Requirements spelled out in the NPDES Permit (Section 2.4). It is thus in the best interest of the City of Elkhart to request Federal funding of Step II work, now that Step I work has been completed and documented. A grant application package has been submitted to the Indiana State Board of Health (ISBH), and it is hoped that said application will be followed up.
2. Appreciable additional information on the operational characteristics, process layouts, and wastewater sources and discharges is required before any final concrete conclusions can be reached pertinent to a comprehensive industrial surveillance and pretreatment program. This will be achieved during Phase II by further investigations, individual meetings with respective industries, and sampling and analysis.
3. Discharges from thirty two (32) industries are currently recommended to be sampled and analysed. This is subject to be changed as more data become available. The parameters to be sampled have been chosen based on currently available information and they are liable to change once more data are gathered in Phase II. Also, the sampling sites, the sampling modes, and the monitoring requirements will be defined more clearly as Phase II progresses.

Introduction



Chapter 2

CHAPTER 2

INTRODUCTION

2.1 GENERAL

In a letter to Mayor Peter A. Sarantos dated April 9, 1979, Mr. Oral Hert, the technical secretary of the Indiana State Pollution Control Board (ISPCB), enclosed a modification of Elkhart's NPDES Permit No. IN0025674. The modification, titled "Attachment A - Special Conditions," is comprised of a compliance schedule for the development of a Publicly Owned Treatment Works (POTW) Industrial Pretreatment Program as required by Section 402 (b)(8) of the Clean Water Act and 40 CFR 403.8. "Attachment A" supersedes all existing requirements of the NPDES permit concerning industrial surveillance ordinance development, and pretreatment requirements.

2.2 OBJECTIVES AND REQUIREMENTS OF THE GENERAL PRETREATMENT REGULATIONS

Regulations for establishing National Pretreatment Standards are meant to fulfill three objectives namely:

1. To prevent the introduction of pollutants into POTW's which will interfere with the operation of a POTW, including interference with its use or disposal of municipal sludge.
2. To prevent the introduction of pollutants into POTW's which will pass through the treatment works or otherwise be incompatible with such works.
3. To improve opportunities to recycle and reclaim municipal and industrial wastewaters and sludges.

On page 27751 of the Federal Register, Part 403, Vol. 43, No. 123 - Monday, June 26, 1978, the POTW pretreatment program requirements were defined. A summary of said requirements is presented hereunder:

1. Establishment of legal authority to enable the POTW to:
 - a. Deny or condition new or increased contributions of pollutants.
 - b. Require compliance with Federal, State, and local requirements.
 - c. Control contributions.
 - d. Develop a compliance schedule for all industrial users to meet applicable requirements.
 - e. Carry out independent inspection, surveillance and monitoring procedures.
 - f. Enforce Federal, State and local standards.
2. Development of an industrial pretreatment program by:
 - a. Identifying and locating all industrial users subject to the pretreatment program.
 - b. Determining the wastewater characteristics of those users.
3. Development of methods of funding so as to have sufficient resources and personnel to maintain the program.

2.2.1 National Pretreatment Standards - Prohibited Discharges

Pollutants introduced into POTW's by any source of a nondomestic discharge shall not inhibit or interfere with operation or performance of the works. These general prohibitions apply to all such users of a POTW whether or not the user is subject to other National Pretreatment Standards or any National, State, or Local Pretreatment Requirements.

The following pollutants may not be introduced into a POTW:

1. Pollutants which create a fire or explosion hazard in the POTW.
2. Pollutants which cause corrosive structural damage to the POTW, but in no case discharges with pH lower than 5.0; unless the works are specifically designed to accommodate such discharges.
3. Solid or viscous pollutants in amounts which will cause obstruction to the flow in sewers or other interference with the operation of the POTW.
4. Any pollutant, including oxygen demanding pollutants (BOD, etc.) re-leased in a discharge of such volume or strength as to cause interference in the POTW.
5. Heat in amounts which will inhibit biological activity in the POTW resulting in interference but in no case heat in such quantities that the temperature at the treatment works influent exceeds 40°C (104°F), unless the works are designed to accommodate such heat.

POTW's developing POTW Pretreatment Programs shall be required to develop and enforce specific limits for discharges of the pollutants listed above. Such limits shall be incorporated in the NPDES permit issued to the POTW and shall replace and be enforceable in lieu of the general prohibitions set forth above.

2.2.2 National Pretreatment Standards - Categorical Pretreatment Standards

Categorical Pretreatment Standards specify quantities or concentrations of pollutants or pollutant properties which may be discharged or introduced to a POTW by existing or new Industrial Users in specific industrial sub-categories. These Standards, unless specifically noted otherwise, shall be in addition to the Prohibited Discharge Standards. State or local discharge limitations may be more stringent than Federal limitations, based on the POTW operations.

The basis for the pretreatment regulations is a consent decree dated June 7, 1978. EPA agreed to establish standards for the wastewater discharges of twenty one (21) industries (or industrial categories) listed in Table 2.1.

EPA estimates that at least 87,000 existing industrial establishments are classified as falling into one of these twenty one (21) "primary polluter" categories and are discharging wastewaters into a local sewer system for treatment.

Also under the terms of the consent decree, the EPA will concentrate its efforts on preparing standards for sixty five (65) toxic pollutants, to include organic and inorganic pollutants (Table 2.2). Obviously, a particular industrial category may discharge only a small number of toxic pollutants, and its pretreatment requirements would reflect the composition of its waste. As EPA studies each industry, however, it has the authority to add restrictions on toxics that are not on the list of the "Noxious 65."

Pretreatment Standards for the industrial point source categories are expected to be promulgated on the dates set in Table 2.1. Effluent limitation guidelines and proposed standards have been defined for several of the categories. A period for comments is provided following publishing of proposed standards and regulations. The only "final rule" of a categorical standard that has been promulgated, however, is that for the electroplating industry (Appendix A). It is believed that promulgation dates for other categories will be rescinded beyond those set in Table 2.1, due to further investigations and comments.

2.3 ELKHART SEWER USE AND RATE ORDINANCE

The existing City of Elkhart Sewer Use and Rate Ordinance, which went into effect on January 1, 1978, has specific rules and regulations pertaining to "major contributors," "prohibitions on discharges," and "effluent limitations." These are as follows:

TABLE 2.1
LIST OF TWENTY ONE (21) INDUSTRIAL POINT SOURCE CATEGORIES
UNDER SCRUTINY BY THE EPA
(Including Date for Promulgation of Regulation)

<u>CATEGORY</u>	<u>PROPOSED DATE FOR PROMULGATION OF REGULATION</u>	<u>PROMULGATION DATE OF FINAL RULE^a</u>
1. Timber Products Processing	12/79	
2. Steam Electric Power Plants	10/79	
3. Leather Tanning and Finishing	8/79	
4. Iron and Steel Manufacturing	5/80	
5. Petroleum Refining	10/79	
6. Inorganic Chemical Manufacturing	4/80	
7. Textile Mills	12/79	
8. Organic Chemical Manufacturing	8/80	
9. Non-ferrous Metal Manufacturing	3/80	
10. Paving and Roofing Materials Manufacturing	1/80	
11. Paving and Ink Formulation and Printing		
a. Paint and Ink	4/80	
b. Printing and Publishing	8/80	
12. Soap and Detergent Manufacturing	1/81	
13. Laundries, Dry Cleaners, and Auto Washes	7/80	
14. Plastic, Synthetic Resin, and Manmade Fiber Manufacturing	8/80	
15. Pulp, Paperboard, and Converted Paper Production	8/80	
16. Rubber Processing	1/80	
17. Miscellaneous Chemicals		
a. Adhesives and Sealants	8/80	
b. Gum and Wood Chemicals	3/80	
c. Pesticides	10/80	
d. Pharmaceuticals	7/80	
e. Explosives Manufacturing	7/80	
f. Photographic Industry		
18. Machinery and Machinery Products Manufacturing		
a. Aluminum Forming	10/80	
b. Battery Manufacturing	10/80	
c. Coil Coating	3/80	
d. Copper Forming	11/80	
e. Foundries	5/80	
f. Plastics Processing	5/81	
g. Porcelain Enamel	5/80	
h. Mechanical Products	3/81	
i. Electrical and Electronic Components	10/80	
19. Electroplating	10/80	9/79
20. Ore Mining and Dressing	7/80	
21. Coal Mining and Related Services	6/80	

^aDate regulation published in the Federal Register

TABLE 2.2
TOXIC CHEMICALS LIST
"NOXIOUS 65" *

- | | |
|--|--|
| 1. Acenaphthene | 34. Endrin and metabolites |
| 2. Acrolcin | 35. Ethylbenzene |
| 3. Acrylonitrile | 36. Fluoroathene |
| 4. Aldrin/Dieldrin | 37. Halothere |
| 5. Antimony and compounds | 38. Halomethanes |
| 6. Arsenic and compounds | 39. Heptachlor and metabolites |
| 7. Asbestos | 40. Hexachlorobutadiene |
| 8. Benzene | 41. Hexachlorocyclohexane (all isomers) |
| 9. Benzidine | 42. Hexachlorocyclopentadiene |
| 10. Beryllium and compounds | 43. Isophorone |
| 11. Cadmium and compounds | 44. Lead and compounds |
| 12. Carbon Tetrachloride | 45. Mercury and compounds |
| 13. Chlordane (technical mixture and metabolites) | 46. Naphthalene |
| 14. Chlorinated benzenes (other than dichlorobenzenes) | 47. Nickel and compounds |
| 15. Chlorinated ethanes (including 1,2 dichloroethane, 1,1,1 Tri-chloroethane, & hexachloroethane) | 48. Nitrobenzene |
| 16. Chloroalkyl ethers (chloromethyl chloroethyl, and mixed ethers) | 49. Nitrophenols (including 2, 4-dinitrophenol, Dinitrocresol) |
| 17. Chlorinated naphthalene | 50. Nitrosamines |
| 18. Chlorinated phenols | 51. Pentachlorophenol |
| 19. Chloroform | 52. Phenol |
| 20. 2 - Chlorophenol | 53. Phthalate esters |
| 21. Chromium and compounds | 54. Polychlorinated biphenyls (PCB's) |
| 22. Copper and compounds | 55. Polynuclear aromatic hydrocarbons (including benzanthraces, benzopyrenes, benzofluoroanthene, chrysenes, dibenzanthracenes, and indenopyrenes) |
| 23. Cyanides | 56. Selenium and compounds |
| 24. DDT and Metabolites | 57. Silver and compounds |
| 25. Dichlorobenzenes (1,2-,1,3-, & 1,4- dichlorobenzenes) | 58. 2,3,7,8- Tetrachlorodibenzo - P - dioxin (TCDD) |
| 26. Dichlorobenzidine | 59. Tetrachloroethylene |
| 27. Dichloroethylenes (1,1-, and 1,2- dichloroethylenes) | 60. Thallium and compounds |
| 28. 2,4- Dichlorophenol | 61. Toluene |
| 29. Dichloropropane and dichloropene | 62. Toxaphene |
| 30. 2,4- Dimethylphenol | 63. Trichloroethylene |
| 31. Dinitrotoluene | 64. Vinyl Chloride |
| 32. Diphenylhydrazine | 65. Zinc and compounds |
| 33. Endosulfan and metabolites | |

*EPA has since redefined the list of pollutants to include 129 specific substances.

1. Surveillance of Major Contributors (Section 4.3 of the Ordinance).
2. Monitoring of Major Contributors (Section 4.4 of the Ordinance).
3. Admissibility - Prohibitions on Discharges (Section 4.8 of the Ordinance).
4. Admissibility - Prohibition of Unpolluted Waters (Section 4.9 of the Ordinance).
5. Admissibility - Limitations on Radioactive Wastes (Section 4.10 of the Ordinance).
6. Admissibility - Limitations on Wastewater Strength (Section 4.12 of the Ordinance).

Sections 4.3, 4.4, 4.8, 4.9, 4.10, and and 4.12 of the Ordinance, referred to above, are reproduced in Appendix B. The ordinance should be reviewed during Phase II to insure that it meets the pretreatment program requirements (Section 2.2.1).

2.4 "ATTACHMENT A - SPECIAL CONDITIONS" TO THE NPDES PERMIT

The document that mandated the development of an Elkhart Industrial Pretreatment Program, and prompted initiation of Phase I of the program is "Attachment A - Special Conditions" to the Elkhart NPDES Permit No. IN0025764. A copy of "Attachment A - Special Conditions", is presented in Appendix C. As specified in Attachment A the activities required to be completed, along with respective completion deadlines are presented hereunder:

ACTIVITIES TO BE COMPLETED BY MAY 1, 1980

Activity 1

- a. Identification of industrial users with potential harmful discharges, which might be subject to regulation under the Pretreatment Program.

- b. Notification of all industrial users identified in Step "a" above as to the current Pretreatment Standards for prohibited discharges, the applicable Categorical Pretreatment Standards as they become effective, and any applicable requirements under Section 402 (b) and 405 of the Act, and Sections 3001, 3004 and 4004 of the Solid Waste Disposal Act.
- c. Identification of the volume and character of pollutants discharged to the POTW by the industrial users defined in "a" above.
- d. Determination of what other technical information is necessary to develop an industrial waste ordinance, or other means, to enforce the Pretreatment Standards.
- e. Indication of any specific requirements currently in effect to prevent industrial slug discharges.
- f. Submission to the Indiana State Board of Health (ISBH) a final report on the information gathered during the progress of Activity 1, and the conclusions reached and recommendations made thereof.

Activity 2

- a. Evaluation of the legal authority of the City to apply and enforce the pretreatment requirements of Sections 307 (b) and (c) and 402 (b)(8) of the Act, and those requirements outlined in 40 CFR 403.8 (f)(1).
- b. Evaluation of the sufficiency of the financial programs and revenue sources to be used in implementing the Pretreatment Program.
- c. Evaluation of the personnel available, and their skills and technical backgrounds thereof, to determine whether or not the Pretreatment Program can be successfully implemented with existing personnel.

- d. Submission of the information gathered and evaluations performed as described above to the ISBH.

ACTIVITIES TO BE COMPLETED BY JANUARY 1, 1981

Activity 3

- a. Designing a program which will require self-monitoring by those industrial users subject to pretreatment requirements. The program is to also provide for inspection, surveillance, and monitoring procedures by the POTW. Such procedures will allow the City to determine compliance or non-compliance with Pretreatment Standards independent of information supplied by the industrial users. The requirements for the monitoring program are delineated in 40 CFR 403.8 and 403.12 especially 403.8 (f)(1)(iv-v), 403.8 (f)(2)(iv-vi) and 403.12 (h-j), (l-n).
- b. Determining the monitoring equipment needed for sampling and analysis, and what municipal facilities, if any, must be constructed in order to implement the Pretreatment Program.
- c. Submission to the ISBH of the designed monitoring program along with a list of the needed monitoring equipment and municipal facilities as defined in Activity 3 a and b.

Activity 4

- a. Determination of specific effluent limitations to be adopted by the City for the prohibited discharges described in 40 CFR 403.5.
- b. Specifying violations of the specific effluent limitations as adopted by the City for the prohibited discharges.
- c. Submission of the effluent limitations and the specified violations to the ISBH.

ACTIVITIES TO BE COMPLETED BY AUGUST 1, 1981

Activity 5

If the City's legal authority, revenue sources, and personnel availability are determined to be deficient, the City shall obtain the necessary legal authority, revenue sources, or personnel by September 1, 1980, or at such earlier date as is necessary to enable the timely completion of any other activity under these requirements. In the case of a deficiency in legal authority, the City shall acquire the requisite authority as promptly as reasonably possible.

Activity 6

Obtaining the needed monitoring equipment and finishing the construction of any needed municipal facilities by September 1, 1980, or at such earlier date as is necessary to enable the timely completion of any other activity under the NPDES requirements.

Activity 7

Submission of a request to the ISBH for approval of the Pretreatment Program in accordance with the requirements of 40 CFR 403.9, by September 1, 1980, or three months before the date the grantee is scheduled to receive 90% of Step 3 funding, whichever is earlier.

ADDITIONAL REQUIREMENTS

- a. The City shall submit all accumulated information, evaluation, or description of completed work to the ISBH or the Regional Administrator of the EPA upon request.
- b. In addition to all other reporting requirements, the City shall summarize the progress made on the Pretreatment Program development during each calendar quarter and shall submit the summary no later than the 28th day of the month following each reporting quarter.

- c. Any application for authority to revise categorical pretreatment standards to reflect POTW removal of pollutants, in accordance with the requirements of 40 CFR 403.7, must be submitted to the ISBH at the time of application for POTW Pretreatment Program approval or at the time of application for reissuance of the permit.
- d. At the earliest date the City obtains the legal authority specified in 40 CFR 403.8 (f)(1), the City shall proceed to require compliance by affected Industrial Users with all applicable pretreatment requirements, including but not limited to National Pretreatment Standards, irrespective of whether the City has an approved POTW Pretreatment Program.

2.5 PURPOSE OF THE STUDY

Due to the deadline of May 1, 1980, imposed in Attachment A of the NPDES permit, for completing Activity 1 (a-f) and Activity 2 (a-d), and due to the desire of the Elkhart Board of Public Works and Safety (EBPWS) to meet said deadline, the work requirements were divided into two phases. Phase I is preliminary in nature and entails reconnaissance, data collection, sending out questionnaires to industries, a public meeting with industries, some preliminary sampling and analysis, and the classification of industries. As such, Phase I develops an organized basis for the Phase II activity.

Phase II is where most of the monitoring and wastewater characterization work associated with the Industrial Pretreatment Program is undertaken. Also, Phase II will result in the technical information necessary to develop an industrial waste ordinance and the specific requirements to control industrial pollutant discharges and prevent shock loadings, as well as the legal, financial, and personnel considerations and requirements.

The purpose of this study is to complete the majority of activities required under Phase I.

2.6 SCOPE OF WORK - PHASE I

The Scope of Work for Phase I is presented in Appendix D. The said Scope of Work was made part of an agreement entered between the City of Elkhart, represented by the EBPWS, and Snell Environmental Group, Inc. (SEG), on April 3, 1979. The scope underscores that the Phase I work is basically to develop background information for Phase II. These initial efforts center on determining the number and size of industries and non-residential users of the POTW. The basic outline of the Scope of Work of Phase I is:

2.6.1 Task A: Identification

This task comprises the identification of all Industrial Users with the potential for discharge of substances that can be the source of three major problems at the treatment plant namely pass through, interference, and sludge contamination.

2.6.2 Task B: Notification

This task consists of notifying industrial users, with the potential for discharge of substances which might be subject to regulation under the Pre-treatment Program, as to the current pretreatment regulations for prohibited discharges and any applicable requirements under Sections 402 (b) and 405 of the Act. This is to be achieved by means of a questionnaire to and a public meeting with industries.

2.6.3 Task C: Preliminary Visitation, Sampling, and Monitoring

This task involves a cursory and preliminary attempt at identifying the volume and character of pollutants contributed by as many of the Industrial Users as possible.

2.6.4 Task D: Classification

This task entails using all the information developed above to classify

the industries in accordance with such general considerations as wet vs. dry, major and minor, volumes of flows, and critical discharges. Details of the classification will be clarified as more information on each industry becomes available.

2.6.5 Task E: Preparation of a Final Report

This task is comprised of preparing a report for the City of Elkhart to be submitted to the ISBH. The report will present all the information gathered above along with pertinent recommendations and conclusions to proceed with Phase II.

2.6.6 Time Schedule

Phase I was initiated in May of 1979, and was completed in November, 1979. Phase I was reimbursed by local City monies to allow for a quick start-up. Phase II is planned to begin as soon as funding opportunities become available through an EPA grant offer.

2.7 PHASE II - FEDERAL FUNDING

A grant amendment covering Phases I and II as well as the monitoring program and the effluent limitations (both of which are required by the first of January, 1981, in accordance with the NPDES permit) was submitted to the ISBH on April 23, 1979. Copies of the grant amendment were sent to Mayor Sarantos, members of the EBPWS, and the WWTP superintendent.

On May 23, 1979, Mr. Kenneth Lee of the ISBH sent a letter to Mrs. Maxine Miller, President of the EBPWS, requesting that the City resubmit a revised proposal based on "identifying the industries involved and estimating their volume of discharges and nature of effluent in regard to content." A copy of the letter is reproduced in Appendix E.

As such, it is felt that based on the findings and recommendations presented in this report, the City can modify the initial industrial pretreatment

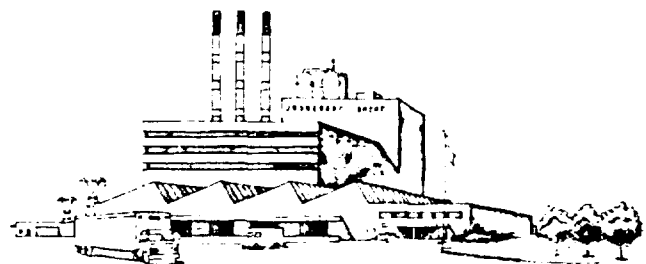
grant amendment package and resubmit it to the ISBH, and push for federal funding of Phase II and whatever aspects of Phase I that were not made part of the Scope of Work of the locally funded portion of Phase I.

It should be noted that federal regulations specify that the following tasks of an industrial pretreatment program are federally and state funded (Federal Register, Volume 43, No. 123, Monday, June 26, 1978):

1. Inventory of industrial and commercial wastes.
2. Determination of required technical information.
3. Designing the monitoring program.
4. Obtaining monitoring and laboratory equipment.
5. Constructing monitoring facilities.
6. Determining WWTP tolerances.
7. Determining pollutant removals.
8. Evaluating financial programs.
9. Evaluating legal authority.
10. Other activities as approved by the Regional Administrator.

In the State of Indiana, the federal share is 75% and the state share is 10%.

**Inventory of
Contributing Industries
and Industrial Data**



Chapter 3

CHAPTER 3

INVENTORY OF CONTRIBUTING INDUSTRIES AND INDUSTRIAL DATA

3.1 GENERAL

This chapter presents the steps taken to identify the industrial users, and the consequent development of the master list of industries. It also reviews and summarizes the limited data available in few documents pertinent to the industrial characterization process in Elkhart. Essentially, this chapter meets the requirements of "Task A - Identification of the Engineer's Scope of Services" (Appendix D).

3.2 INVENTORY STAGE - INDUSTRIAL LISTS

The first phase of the identification process was an inventory stage to establish the size of the Industrial Pretreatment Program. This included list compilation, preliminary screening, further evaluation, and finalization of a master list.

3.2.1 Compilation of Initial List

The first step was to compile a list of various types of "non-residential" establishments in the Elkhart Area. Establishing the list of "non-residential" users was laborious and time consuming. The primary sources that were identified and subsequently used to establish the list of "non-residential" users are:

1. The 1978 Industrial Directory published by the Greater Elkhart Chamber of Commerce;
2. The Elkhart Water Works records and computer printouts;
3. The City Engineer's Office records;
4. The Wastewater Treatment Plant (WWTP) records;

5. The Industrial Wastewater Division of the City Engineer's Office.

From the above sources, a list consisting of 957 "non-residential" establishments was compiled in alphabetic order (Appendix F). These establishments include but are not limited to manufacturers, processors, printers, wholesalers, warehouses, suppliers, distributors, restaurants, assembling plants, nursing homes, laundromats, bakeries, clinics, foundries, banks, apartment complexes, office buildings, churches, trailer courts, dry cleaners, retailers, theaters, hotels, motels, car washes, and schools. It is important to realize that the term "non-residential" is not completely accurate, but it is thought to be the best available to define the list of 957, for the lack of a more comprehensive term. The reason that the term "non-residential" is not completely accurate is that the list of 957 includes apartment complexes, nursing homes, and trailer courts which are residential. Moreover, it should be realized that there are "non-residential" establishments that are not on the list, such as law and other professional offices; but that are assumed to discharge residential quality wastewaters.

3.2.2 Preliminary Screening - Intermediate Lists

The completed list of 957 "non-residential" users was then sent to the City Engineer's Office. There, the list was screened and the following major categories of users were defined:

1. Those non-residential users that are within the Elkhart corporate limits versus those that are outside the corporate limits;
2. Those non-residential users that are within the corporate limits but are not on the sewer network and therefore, do not discharge into the POTW;
3. Those "non-residential" users that discharge less than 25,000 gallons per day of domestic quality wastewater. These include wholesalers, warehouses, restaurants, nursing homes, apartment complexes, dry cleaners, offices, churches, retailers, theaters, schools, and the smaller hotels and motels.

Also, any "non-residential" users that have gone out of business were eliminated from the list.

The list of 957 "non-residential" establishments was also sent to the Elkhart Water Works to delineate those names on the list that have no public water service.

Based on the above, the following lists were developed and are presented in Appendix F.

1. A list of 287 "non-residential" establishments outside the Elkhart corporate limits. These establishments are not to be included in the pretreatment program.
2. A list of 140 "non-residential" establishments within the Elkhart corporate limits but not on the sewer network. These establishments were also eliminated from the pretreatment program.
3. A list of 428 "non-residential" establishments that have no public water service.

3.2.3 Further Evaluation - Master List of Industries

Further evaluation of the non-residential establishments, within the corporate limits, that discharge into the sewer network resulted in the development of a Master List of industries that will be subject to the Pretreatment Program (Appendix F). Warehouses, suppliers, distributors, restaurants, office buildings, retailers, public institutions, gas stations, small businesses, apartment houses, nursing homes, laundromats, bakeries, clinics, banks, trailer courts, theaters, hotels, and motels were excluded to keep the Master List at a manageable size. At this time seventy (70) industries are included in the Master List and are delineated in Table 3.1. These seventy (70) industries were decided upon, either because they discharge more than 25,000 gpd or, based on information currently available, the possibility exists that they discharge potentially harmful and hazardous pollutants. Other "non-residential" users may be added to the Master List during Phase II if deemed necessary, or as new regulations are promulgated.

TABLE 3.1

INDUSTRIAL PRETREATMENT PROGRAM
MASTER LIST INDUSTRIES

- | | |
|---|--|
| 1. AACOA | 38. Indiana Plastics, Incorporated |
| 2. Adams and Westlake Company | 39. Instant Copy of Indiana |
| 3. Anco Products, Incorporated | |
| 4. Anderson Silver Plating Company | 40. J & K Oil Company, Incorporated |
| 5. W.T. Armstrong Company, Inc. | 41. Jessen Manufacturing Company |
| 6. Atlas Chemical Milling | |
| 7. Atlas Steel Rule Die, Inc. | 42. Ken's Quality Print Shop |
| | 43. Kent Company |
| 8. J.J. Babbitt Company, Inc. | 44. Kiefer and Sons, Inc. |
| 9. Babcock & Wilcox Company | |
| 10. Vincent Bach Company | 45. L & J Press Corporation |
| 11. Barger Packaging Corporation | 46. Labour Pump |
| 12. E.K. Blessing Company, Inc. | |
| | 47. Madden Corporation |
| 13. CTS Corporation (Plastics Plant) | 48. McDowell Enterprises, Incorporated |
| 14. CTS of Elkhart, Inc. (Main Plant) | 49. Miles Laboratories, Incorporated |
| 15. Conrail Corporation | 50. Modern Printers & Duplicators |
| | |
| 16. Dometic Sales Corporation | 51. NIBCO Incorporated |
| 17. Domore Office Furniture | 52. North Side Tool & Engineer |
| 18. Don's Print Service | |
| 19. Durakool, Incorporated | 53. Philips Industries |
| | 54. Pulp Products Corporation |
| 20. Elixir Industries | |
| 21. Elkhart Brass Manufacturing Co., Inc. | 55. Routson Brass Foundry, Incorporated |
| 22. Elkhart Bridge and Iron Company | |
| 23. Elkhart Foam Products Company | 56. Selmer Company (1120 N. Main) |
| 24. Elkhart Foundry and Machine | 57. Selmers (2100 Industrial Pkwy.) |
| 25. Elkhart General Hospital | 58. Selmers (2415 Industrial Pkwy.) |
| 26. Elkhart Products Corporation | 60. South Side Plating Works, Inc. |
| 27. Elkhart Rubber Works, Incorporated | 60. Standard Tool & Machine |
| 28. Elkhart Tool and Die, Incorporated | 61. Starr Machine |
| 29. Excel Corporation | 62. Strong Steel |
| | |
| 30. Federal Paper Board Company, Inc. | 63. Taylor Products Division |
| 31. Federal Press Company | 64. Teledyne Metal Forming |
| 32. Foamcraft, Incorporated | 65. Tenneco Chemicals |
| 33. Franklin Press, Incorporated | 66. Thermco Products |
| | 67. Thompson Manufacturing Company, Inc. |
| 34. Hermaseal Incorporated | 68. Truth Publishing Company |
| | |
| 35. ILC Products Company, Inc. | 69. Walter Piano Company, Incorporated |
| 36. I.M.C. Products Company, Inc. | 70. Whitehall Laboratories |
| 37. Ideal Plating Corporation | |

3.3 GENERAL REVIEW OF EXISTING INDUSTRIAL DATA

Limited information is currently available on most of the seventy (70) industries especially in terms of the quality of their discharges and their operational processes and procedures. Nevertheless, information available was made use of and provided the skeletal background for the more complete monitoring, sampling, and analysis program to be undertaken in Phase II.

The main sources of data currently available on the industrial wastewater discharges are:

1. The Elkhart Segmented Facilities Plan (SFP);
2. The Elkhart Water Works Records;
3. The Environmental Instrument Systems (EIS) Report;
4. Records at the Elkhart WWTP;
5. Records at the Industrial Wastewater Division of the City Engineer's Office.

3.3.1 The Elkhart Segmented Facilities Plan

During the preparation of the Elkhart Segmented Facilities Plan, and in order to verify previous findings and pinpoint sources of high organic loading, a monitoring, sampling, and analysis program was undertaken and covered the WWTP influent and other major point source contributors namely:

1. Miles Laboratories, Inc.;
2. Durakool;
3. CTS;
4. Elkhart Foundry;

5. Excel Corporation;
6. Gould (Elkhart Products Corporation);
7. Ideal Plating;
8. Industrial Park;
9. NIBCO;
10. Whitehall.

The sampling and monitoring program was conducted by SEG. Sampling and monitoring started on May 23, 1977, and ended on July 1, 1977. Another independent laboratory, Environmental Instruments Systems (EIS), also performed analyses in the program and served as a separate quality control.

The detailed data and analyses have been documented in Appendix E of the Segmented Facilities Plan and reproduced as Appendix G. A summary of the results is depicted in Table 3.2.

3.3.2 The EIS Industrial Waste Survey Analysis

At the same time that the sampling and analysis program described above (May 23 - July 1, 1977) was being undertaken, an independent analysis program on split samples from the same industrial sources defined above was being undertaken at the Environmental Instrument Systems (EIS), Inc., an independent laboratory in South Bend, Indiana. This was done to substantiate SEG's findings, to provide an independent and unbiased quality control mechanism, and to provide an additional set of data that can be used in future decision making processes.

The results of EIS's analyses are documented in a report titled "City of Elkhart Industrial Waste Survey Analyses," which was submitted to SEG on July 28, 1977.

TABLE 3.2

SUMMARY - 30-DAY SAMPLING AND MONITORING RESULTS
MAY 23, 1977 - JULY 1, 1977
ELKHART SEGMENTED FACILITIES PLAN

SOURCE	SAMPLING AND ANALYSIS DURATION (days)	FLOW (mgd)	PARAMETER CONCENTRATION (mg/l)								
			BOD ₅	COD	S.S	Phosphorus	Copper	Nickel	Zinc	Mercury	Chromium
Miles Labs., Inc.	22	3.0	1553	-	622	2.96	0.175	0.07	0.25	0.35	0.17
Durakool	5	0.006	208	-	42	2.18	0.24	0.02	0.14	25.6	0.08
CTS	5	0.09	48	68	43	0.95	2.84	6.19	0.25	ND ^b	0.11
Elkhart Foundry	1	0.01	90	248	196	2.4	-	-	-	-	-
Excel Corporation	5	0.037	70	133	100	5.65	0.025	ND ^a	5.42	ND ^b	ND ^b
Gould (Elkhart Products Corp.)	5	0.037	115	255	95	1.5	3.73	0.02	0.065	0.8	0.02
Ideal Plating	5	0.05	36	209	352	1.8	0.26	0.01	57.63	1.33	3.92
Industrial Park	5	0.35	82	169	136	5.74	3.32	0.99	2.12	0.45	0.51
NIBCO	5	0.020	<10	99	87	9.9	104.0	0.18	0.34	0.4	0.28
Whitehall	6	0.14	98	309	142	2.3	0.02	ND ^a	0.02	0.70	ND ^b

* Expressed in ug/l

ND^a - Less than 0.009 mg/l

ND^b - Less than 0.001 mg/l

A summary tabulation of EIS's results is depicted in Table 3.3.

3.3.3 Industrial Directory

The Greater Elkhart Chamber of Commerce, Inc. publishes annually an Industrial Directory of manufacturers, processors, printers, wholesalers, and transportation firms in the following locales:

Elkhart, Bristol, Wakarusa, Edwardsburg, Goshen, Middlebury, Millersburg, Mishawaka, Nappanee, New Paris, South Bend, Walkerton, and White Pigeon.

The Directory includes the following information:

1. Name, address, and phone number of each firm;
2. The executives of each firm;
3. The products of each firm;
4. The range of employees in each firm. Instead of specifying the exact number of employees, one of the following ranges is specified: 1-19, 20-29, 30-49, 50-99, 100-199, 200-399, 400-599, 600-799, 800-999, and 1,000 or more.

The 1978 Industrial Directory was used extensively in the development of the initial list of "non-residential" establishments.

3.3.4 Water Consumption Data

3.3.4.1 Public Water Supply

Late in 1978, a computer program was developed and installed at the Elkhart Water Works to ameliorate and facilitate documentation and billing procedures at the Works. According to Mr. Sam Lyle, the Director of the Works, the

TABLE 3.3

E.I.S. SAMPLING AND ANALYSIS DATA SUMMARY

Industry	Sampling Dates (1977)	Number of Samples		Parameters (ppm)															
		BOD, SS, P	Metals	BOD ₅		Suspended Solids		Total P		Chromium		Copper		Mercury		Nickel		Zinc	
				Range	Mean	Range	Mean	Range	Mean	Range	Mean	Range	Mean	Range	Mean	Range	Mean	Range	Mean
CTS	6/19-6/23	5	2	*6-20	12	17-75	41	.66-1.8	1.10	*.10-0.30	*.20	2.8-3.5	3.2	*.005	*.005	6.4-8.0	7.2	.25-.26	.25
Durakool	6/14-6/21	6	3	14-90	42	21-50	30	.96-2.4	1.5	*.10-.20	.13	.25-.30	.28	*.005	*.005	0.10	.10	.08-.23	.15
Elkhart Products	6/19-6/23	5	2	33-2500	562	55-942	155	.11-3.0	1.21	*.10	*.10	3.8-4.0	3.9	*.005	*.005	*.05	*.05	.10	.10
Excel Corporation	6/19-6/23	5	2	11-108	40	28-330	111	2.8-36.4	11.2	*.10-.20	*.15	.07-.13	.10	*.005	*.005	*.05	*.05	3.6-6.5	5.0
Ideal Plating	6/21-6/27	5	3	12-37	*24	152-480	313	.16-.58	.34	1.0-4.9	3.5	.21-.45	.36	*.005	*.005	.05-.10	.07	19.0-102	72
Industrial Park	6/26-6/30	5	3	18-31	24	132-256	182	.16-8.8	3.9	.25-1.1	.65	1.8-4.9	2.9	*.005	*.005	.30-1.8	.95	1.7-2.4	2.1
Miles Laboratories	5/23-6/15	23	3	713-2480	1437	261-2189	730	.08-2.8	1.7	.10-.25	.17	.11-.15	.13	*.005	*.005	*.05-.08	*.06	.19-.20	.20
NIBCO	6/26-6/30	4	3	*12-*31	*19	9-126	56	1.2-8.8	4.5	*.10-.10	*.10	29-200	106	*.005	*.005	.12-.30	.23	.23-.68	.39
Whitehall Laboratory	6/23-6/30	6	3	*15-418	115	17-366	132	.54-3.3	1.47	*.10-.10	*.10	.06-.15	.10	*.005	*.005	*.05-.05	*.05	.11-.60	.29

*Less than

program is functional and is currently being used for billing purposes.

Copies of the computer printouts for commercial and industrial users only, dated March 1, 1979, April 18, 1979, and April 27, 1979, were obtained from the Elkhart Water Works. The information provided in the computer printouts include but is not limited to the following:

1. Account number;
2. Customer's name;
3. Service address and billing address;
4. Water consumption for the last month;
5. Monthly bill;
6. Meter readings for the last month and previous four months.

The computer printouts were valuable in defining the metered daily public water consumption rates for the respective industrial users.

3.3.4.2 Private Well Water Supply

Twenty three (23) major commercial or industrial establishments have private water wells and eventually discharge said well water into the sewerage system. Of these major well water users, eighteen (18) industries are included in the Master List of seventy (70) industries. These eighteen industries and the respective number of wells for each of them are listed in Table 3.4.

All the wells are metered and read once a month. The well water flow and the City supplied water comprise the total flow assumed to reach the Elkhart sewerage system.

TABLE 3.4

LIST OF MAJOR INDUSTRIES THAT HAVE PRIVATE WATER WELLS

<u>Industry</u>	<u>Number of Private Wells</u>
1. Adams and Westlake Company	3
2. Anco Products, Inc.	1
3. Babcock and Wilcox Company	1
4. CTS Corporation (Plastics Plant)	2
5. CTS of Elkhart, Inc. (Main Plant)	1
6. Conrail Corporation	1
7. Elixir Industries	1
8. Elkhart Foundry and Machine	2
9. Elkhart Products Corporation	2
10. Elkhart Rubber Works, Inc.	2
11. Federal Paper Board Co., Inc.	1
12. I.M.C. Products Company	1
13. McDowell Enterprises, Inc.	3
14. Miles Laboratories, Inc.	7
15. NIBCO, Inc.	2
16. South Side Plating Works, Inc.	1
17. Taylor Products Division	1
18. Whitehall Laboratories	2

3.3.5 WWTP Sampling Data

The Elkhart WWTP routinely examines six (6) major industries on a continuous basis and selects and samples other industries from time to time. The major industries sampled routinely are:

1. CTS Corporation;
2. Elkhart Products Corporation;
3. Excel Corporation;
4. Miles Laboratories, Inc.;
5. NIBCO, Inc.;
6. Whitehall Laboratories.

All samples are grab samples and are taken from the trunk sewer coming out of the industrial facility. The samples are analysed at the WWTP laboratory to ensure compliance with the Sewer Use Ordinance. A summary of the data collected in these analyses is presented in Table 3.5.

3.3.6 Surveillance Program

In accordance with the Elkhart Sewer Use Ordinance a surveillance program was undertaken by WWTP personnel on twenty seven (27) major industries in Elkhart. The program was performed in three steps:

1. Mailing an industrial surveillance letter;
2. Meetings with industries;
3. Monitoring industrial wastewaters.

TABLE 3.5

WWTP SAMPLING AND ANALYSIS DATA SUMMARY

INDUSTRY	SAMPLING DATES RANGE (1978)	NUMBER OF SAMPLES	PARAMETERS (ppm)											
			Cadmium		Chromium		Copper		Lead		Nickel		Zinc	
			Range	Mean	Range	Mean	Range	Mean	Range	Mean	Range	Mean	Range	Mean
Adams and Westlake Company	1/4-2/17	7	.1	.1	.1-.14	.1	.1-.50	*.2	.1-.15	.1	.1-1.0	.1	.1-.12	.1
Anderson Silver Plating Company	4/24-4/25	2	.1	.1	.1	.1	5.3-11.0	8.2	.1-.35	*.22	1.2-1.8	1.6	.10-.18	.14
Armstrong, W.T., Inc.	4/26-4/27	2	.1	.1	.1-.22	*.16	21-32	26.5	.22-1.2	.71	7.3-18.0	12.6	4.9-16.	10.3
CTS Corporation	1/4-12/21	37	.1-.35	.1	.1-.45	*.14	.1-8.5	1.4	.1-1.9	*.23	.14-28.0	3.8	.1-3.5	*.64
Elkhart Products	1/4-12/21	33	.1	.1	.1-25	*.11	6.4-6.8	3.0	.1-1.2	.21	.1-.86	.14	.1-1.7	.21
Excel Corporation	2/17-12/21	28	.1-.12	.1	.1-8.9	*1.74	1.2-13.4	2.1	.1-1.2	*.16	.1-2.1	.46	.1-5.8	.89
Hermaseal, Inc.	11/3	1	-	.11	-	.40	-	13.1	-	.1	-	.10	-	1.7
Ideal Plating	7/5	1	-	.1	-	3.1	-	.15	-	1.2	-	.1	-	82
Keifer and Sons, Inc.	4/26-4/27	2	.1	.1	.1-.11	.1	.52-.65	.58	.1-.29	*.19	20.-33.	26.5	.75-2.9	1.82
Miles Laboratories, Inc.	1/4-12/27	93	.1	.1	.1-.60	*.13	.1-4.8	.54	.1-8.0	*.92	.1-.63	*.12	.1-4.7	*.37
NIBCO, Inc.	1/6-12/21	32	.1-.14	.1	.1-.84	*.14	.30-930	385	.1-14.7	4.3	.1-.62	*.15	.1-4.1	.92
Whitehall Laboratories	1/4-12/21	31	.1	.1	.1-.24	*.11	.1-5.1	*.39	.1-5.5	*.42	.1-.49	*.12	.1-4.2	*.26

.1 - Concentration less than .10

* - Less than

The industrial surveillance letter, a copy of which is included in Appendix H, was mailed in February, 1979. The meeting between the representatives of each industrial facility and WWTP personnel was required to evaluate the sewer system at the facility, and to define a control manhole at which a representative sample could be obtained. In a few cases, two control manholes were selected.

Once control manholes were located, grab samples were obtained every hour over a forty eight (48) hour period and used to produce two twenty four (24)-hour composite samples. Industries having two control manholes were sampled over four (4) days with two twenty four (24) hour composites at each site. All samples were acquired by utilizing a Sigma motor, model 600 sampler. Preservatives were not used. The results of the surveillance program are presented in Table 3.6.

The data obtained from all the above mentioned sources was utilized in the notification and classification of the major industrial users in Elkhart as will be made clear in the following chapters.

TABLE 3.6
SURVEILLANCE DATA

Industry	Sampling Dates (1979)	Sampling Parameters ^a									
		pH	BOD ₅ (mg/l)	TSS ^b (mg/l)	Tot. Phosphorous (mg/l)	Cadmium (mg/l)	Tot. Chromium (mg/l)	Copper (mg/l)	Lead (mg/l)	Nickel (mg/l)	Zinc (mg/l)
AACOA	5/15	7.8	188	2120	4.04	.1	.1	1.33	1.0	.16	.20
	5/16	7.7	53	1308	1.70	.1	.1	.10	.50	.10	.15
	6/5	7.8	12	426	.60	.1	.15	1.1	.1	.1	.1
	6/6	4.4	26	954	1.36	.1	.34	.33	.1	.1	.70
Adams and Westlake Company	6/28	7.5	8.7	58	.44	.1	.1	.28	.3	.1	.1
	6/29	7.6	5.1	12	1.10	.1	.1	.53	.34	.1	.39
Anderson Silver Plating Company	4/24	7.8	12	66	.10	.1	.1	.11	.1	1.8	.18
	4/25	7.6	4.5	46	.10	.1	.1	5.3	.35	1.2	.10
W.T. Armstrong Company, Inc.	4/26	7.0	*1.0	118	.10	.1	.1	21	.22	7.3	4.7
	4/27	2.1	*1.0	28	2.10	.1	.22	32	1.2	18.	16
Atlas Chemical Milling Company	8/15	2.3	8	376	.60	.1	.68	2.9	1.3	.74	4.6
	8/17	2.5	42	118	.51	.1	.41	8.4	1.4	.25	1.8
Babcock and Wilcox Company	7/10	7.0	33	94	8.03	.1	.21	.1	.1	.42	3.0
	7/11	7.2	95	88	6.80	.1	1.2	.1	.1	1.3	2.9
Vincent Bach Company	5/22	7.3	7.5	62	2.40	.1	.1	3.9	.1	.11	1.9
	5/23	7.3	11	220	2.29	.1	.1	3.8	.1	.37	2.1
Conrail Corporation	7/3	7.4	250	292	13.10	.1	.1	.1	.1	.1	.1
	7/6	7.5	308	354	17.90	.1	.1	.1	.1	.1	.14
CTS Corporation	5/17	7.7	15	20	.51	.1	.1	.24	.1	.10	.1
	5/18	8.0	1.8	28	.10	.1	.1	.10	.1	.1	.1
CTS of Elkhart, Inc.	7/12	7.3	21	32	.76	.1	.1	3.0	.77	26	.22
	7/13	7.1	24	14	.30	.1	.1	1.7	.1	4.7	.13
Durakool, Inc.	5/10	7.6	25	48	2.50	.1	.1	.1	.13	-	.41
	5/11	7.5	22	8	2.10	.1	.1	.1	.1	.1	.1
Elixir Incorporated	7/24	6.6	12	36	.10	.1	.1	.1	.1	.1	.60
	7/25	7.7	7	20	.1	.1	.1	.1	.1	.17	.28
	7/26	7.3	10	30	.11	.1	.1	.1	.1	.1	.1
	7/27	7.4	13	20	.1	.1	.1	.12	.1	.1	.23
Elkhart Brass Mfg. Company, Inc.	7/31	7.2	15	10	.21	.1	.1	.26	.1	.1	.15
	8/1	7.1	12	4	.10	.1	.1	.20	.1	.1	.21
Elkhart Products Corporation	6/8	8.2	46	64	.69	.1	.1	.26	.1	.1	.1
Elkhart Rubber Works Incorporated	7/17	8.0	14	20	.44	.1	.1	.1	.1	.70	.1
	7/18	8.0	11	20	.1	.1	.1	.1	.35	.17	.1
	7/19	7.5	16	26	.1	.1	.1	.1	.1	.15	.1
	7/20	7.3	18	32	.1	.1	.1	.1	.49	.10	.10
Excel Corporation	6/19	7.4	53	96	7.60	.1	.1	.37	.1	1.3	.98
	6/20	7.1	94	10	3.52	.1	.1	.30	.1	.95	.68
Federal Paper Board Company	5/29	6.9	54	90	1.18	.1	.1	.26	.1	.1	.28
	5/31	7.6	36	44	.60	.1	.1	.1	.1	.1	.1
Hermaseal Incorporated	5/8	2.3	22	4	11.5	.1	1.9	2.6	.1	3.4	2.5
	5/9	3.0	23	20	7.6	.1	.44	.30	.16	1.3	.51
Ideal Plating Corp.	3/5	9.9	64	300	5.50	.1	1.6	.17	.1	.1	146
	3/6	8.8	55	164	3.3	.1	.89	.20	.1	.1	110
IMC, Incorporated	3/20	6.7	55	108	.1	.1	.1	.1	.1	.1	93
Kieffer and Son, Inc.	4/19	7.2	*1.0	36	.1	.1	.1	.52	.1	20	2.9
	4/20	7.3	1.8	6	.1	.1	.11	.65	.29	33	.75
McDowell Enterprises Incorporated	5/1	8.0	22	40	2.60	5.0	.1	5.0	.1	1.2	12
	5/2	8.2	22	46	2.29	13	.1	4.5	.1	1.1	12
	5/3	7.1	32	48	1.52	.12	9.2	3.1	.38	7.1	.20
	5/4	7.3	10.2	88	.15	.1	3.7	2.5	2.3	4.2	.10
NIBCO, Incorporated	6/12	4.9	1.3	452	24.8	.1	.1	185	2.5	.1	.90
	6/13	5.0	1.1	308	19.6	.1	.1	137	1.1	.1	.30
	6/15	7.2	207	180	1.61	.1	.1	3.1	.1	.1	.10
	6/16	6.9	93	252	1.90	.1	.1	3.4	.1	.1	.45
Selmer Company	8/3	7.3	94	672	3.30	.1	.1	.66	.18	.20	.62
	8/7	7.8	203	1056	3.80	.1	.1	.72	.1	.1	.26
South Side Plating Works, Incorporated	5/24	7.6	75	52	.21	.1	.1	1.3	1.0	1.2	3.9
	5/25	7.0	45	4	.91	.1	.1	.87	.1	1.5	19
Taylor Products	6/26	7.7	105	120	2.40	.1	.1	.37	.1	.1	.1
	6/27	7.3	141	90	5.20	.1	.1	.58	.1	.12	1.7
Whitehall Laboratories	6/21	7.3	30	42	.1	.1	.1	.51	.1	.1	1.1
	6/22	7.3	48	28	1.26	.1	.1	.23	.1	.1	.22

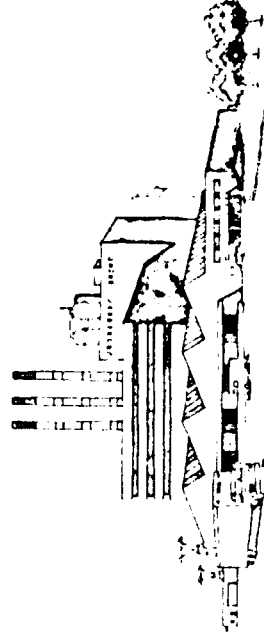
^a - Each sample is a 24 hour composite sample.

^b - Total Suspended Solids

* - Less Than

.1 - Less Than 1.0 mg/l

Notification of Industries



Chapter 4

CHAPTER 4

NOTIFICATION OF INDUSTRIES

4.1 GENERAL

This chapter reviews the notification procedures undertaken to inform the industries of Elkhart of the Industrial Pretreatment Program requirements. The major items comprising the notification process, in chronological order, are the questionnaire, the surveillance letter, the surveillance program and the public meeting between the City of Elkhart and the industrial sewer customers. This Chapter satisfies the requirements of "Task B - Notification" of the Engineer's Scope of Services (Appendix D).

4.2 INDUSTRIAL QUESTIONNAIRE

During the spring and summer of 1979, a five point questionnaire was prepared and mailed under the jurisdiction of the Elkhart WWTP Superintendent. Said questionnaire was sent to ninety eight (98) industries including sixty three (63) of the seventy (70) industries on the Master List.

The questionnaire distributed by the WWTP requested information dealing primarily with identifying the possible contaminants which are being discharged into the sewerage system, the locations where said contaminants are being discharged, and what pretreatment facilities (if any) are in operation. A list of the "Noxious 65" was attached to the questionnaire as well as current interim pretreatment standards for thirteen organic and inorganic pollutants. The five items of information requested are listed below.

1. A sketch of the locations of all wastewater effluent lines that flow into the publicly owned sewer system, along with the layout of major plant features.
2. A description of major product lines and processes utilized within the plant.

3. A detailed description and appropriate sketches of existing pretreatment facilities, including operating data if available.
4. A list of pollutants of interest at the plant, with emphasis on materials limited or prohibited by the Elkhart Sewer Use Ordinance.
5. A list of raw materials or products stored at the plant that may have a pollutant potential.

A copy of the questionnaire letter and the enclosed attachments are presented in Appendix H.

Out of the ninety eight (98) industries that were sent questionnaires, fifty eight (58) replied, fifty one (51) of which are on the Master List. A summary of the questionnaire data collected for the fifty one (51) industries is presented in Chapter 6.

The validity of each response to the questionnaire has not been substantiated. All replies are assumed to be correct and data are reported as is, because at this stage there is reason to believe that the Elkhart industrial users are environmentally aware and cooperative. Any necessary substantiation of data reported in the questionnaire will occur in Phase II.

4.3 SURVEILLANCE LETTER AND PROGRAM

In February, 1979, an industrial surveillance letter was sent to ninety eight (98) industries to notify those industries of an impending wastewater sampling and analysis program mandated by the Sewer Use Ordinance (page 25 of the Ordinance). The details of this process have already been discussed in Section 3.3.6. A copy of the surveillance letter can be found in Appendix H.

4.4 PUBLIC MEETING WITH INDUSTRIES

4.4.1 General

A public meeting was held on Tuesday, June 26, 1979, at 1:30 p.m. at the County Court Building in Elkhart, to discuss the Industrial Pretreatment Program with Industrial Sewer Customers. Copies of the agenda for the meeting, the invitation letter, and the display advertisement are presented in Appendix I.

4.4.2 Attendance

The following people attended the meeting:

Representing the City: Mayor Peter Sarantos; Maxine Miller, City Comptroller and President of the EBPWS; James McCaslin, City Attorney; George Lutz, City Engineer; Worth Yoder, Assistant City Attorney; Jim Lingard, the WWTP Superintendent; Joe Manfredi, the Industrial Wastewater Inspector; and Loren Luecht, the WWTP Laboratory Chemist.

Representing the Elkhart Chamber of Commerce: Keith Meade, the Executive Director; and Bill Fletcher, the Chairman of the Chamber's Environmental Committee.

Representing Region V of the USEPA: Greg Vanderlaan, the Municipal Sludge Coordinator.

Representing SEG: Basim A. Sayigh, Project Manager; and Pratap Rajadhyaksha, Project Engineer.

Around seventy five (75) representatives of the following industries also attended:

Elkhart Rubber, Miles Laboratories, CTS of Elkhart, Whitehall Laboratories, Selmer Company, Anderson Silver Plating, Dragoo Electric Company, Adams

and Westlake Company, Atlas Chem-Milling, Conrail, NIBCO, Taylor Products, Southside Plating, Elkhart Foundry, AACOA, Teledyne Metal Forming, Ideal Plating, Mishawaka Plating, Durakool, ILC Products, Vincent Bach, McDowell Enterprises, Elkhart Products, Elkhart Foam, and Excel.

4.4.3 Proceedings

The proceedings of the public meeting are hereunder summarized.

Mayor Sarantos thanked the attendants for their time and told them that the City is trying to solve the wastewater related problems, and that he believes the panel members can answer questions that the industries might have. He also said that out of the many treatment plants and programs in Indiana, and the country, Elkhart's are some of the best.

Bill Fletcher followed with a brief discussion of the purpose of the meeting as an attempt at presenting EPA and PL 95-217 requirements for preparing an Industrial Pretreatment Program.

Greg Vanderlaan then presented the following points:

1. The Federal Water Pollution Control Act of 1972, referred to as PL92-500, established the NPDES permit requirements.
2. The Federal Water Pollution Act of 1948 was the first and was ineffective. Thus the need for PL 92-500.
3. PL 92-500 required POTW's to have secondary treatment.
4. EPA first began to develop pretreatment standards based on water quality considerations. This view was challenged by proponents of pretreatment standards in light of the fact that water quality standards do not exist for many toxic pollutants, and time required to develop these standards would significantly delay the implementation of a pretreatment program. The settlement of the lawsuit against EPA by the National

Resources Defense Council stipulated that pretreatment standards be based on the best available pretreatment technology. Moreover, these standards would be made to apply to twenty one (21) major industrial categories and address sixty five (65) specific toxic pollutants.

5. The Clean Water Act of 1977 is referred to as PL 95-217. It incorporates most of PL 92-500, but allows for EPA to be more flexible on industrial pretreatment.
6. There are 81,000 wastewater treatment plants and 8,000 POTW's around the United States.
7. Starting in 1976, EPA became involved in POTW solids management and sludge disposal.
8. The EPA pretreatment strategy is to:
 - a. Define pretreatment standards;
 - b. Establish discharge limits;
 - c. Define state, local and federal responsibilities.
9. EPA is going to establish categorical standards for twenty one (21) industries and set limits for sixty five (65) toxic pollutants.
10. The POTW can modify the federal limits to suit its own particular circumstances.
11. The POTW can seek a variance for having better removal efficiency than EPA requirements.
12. The POTW must reveal to the state and EPA the following capabilities:
 - a. The legal authority needed to implement the pretreatment program;
 - b. A compliance program to enforce the regulations;
 - c. Financial and management resources to effectively conduct the program.

13. EPA recommends the establishment of a POTW Program Agency at the local level to supervise the pretreatment program.
14. Preliminary steps for developing the pretreatment program are:
 - a. Establish the industrial data base;
 - b. Send out a questionnaire;
 - c. Follow-up with phone calls and personal visits;
 - d. Conduct sampling and analysis.
15. EPA will not approve construction grants unless an ICR/UCS program is implemented. Also required are a pretreatment program, a CSO control plan, a sludge management plan, a POTW removal efficiency that meets EPA requirements, and adherence to established water quality standards.
16. Of the Cadmium influent to a POTW a maximum of 18% can be removed with 82% remaining in the sludge as a contaminant.

Basim Sayigh (SEG) then discussed the role of the City. He basically presented the requirements of "Attachment A - Special Conditions" to the NPDES permit (Appendix C) and the steps to be undertaken by the City to meet said requirements by respective deadlines. All the information presented is available in the proposal for an industrial pretreatment program which was submitted to the ISBH on April 23, 1979.

Bill Fletcher of the Elkhart Chamber of Commerce followed with a presentation of the following points:

1. He wanted to put industries at ease. They only have to pretreat if they are over the limits. He explained that categorical effluent limitations will require pretreatment for those industries whose wastewater characteristics exceed the standards.
2. Both government and industry should have a realistic attitude. Industry should:

- a. Assume a cooperative stance;
- b. Evaluate and analyze the Pretreatment Program.

Government responsibility should be to:

- a. Impose realistic standards;
 - b. Impose stringent deadlines after consulting industries;
 - c. Not use threats or an intimidating approach.
3. Elkhart industries are committed to improved water quality. They accept their responsibilities.
 4. Government should preserve the industrial community and not drive industries away with overregulation.
 5. Industry should be aware that the individual pretreatment facilities will involve large capital expenditure; engineering work, and operation and maintenance. Each plant may need a certified operator by State Law. There are likely to be other such hidden expenses.
 6. Pretreatment plants will generate a lot of sludge. Sludge disposal in the Michiana area is already a difficult problem. The government should help with this problem.
 7. The managers and engineers administrating the program should be aware of:
 - a. Existing water quality standards;
 - b. Relevant regulations;
 - c. Conditions in the planning area.

Maxine Miller then introduced panel members Greg Vanderlaan, Basim Sayigh, George Lutz, Jim McCaslin, Worth Yoder, Bill Fletcher, Jim Lingard and Joe Manfredi, and opened the floor for questions.

4.4.4 Questions and Answers

1. What is the status of the current monitoring program?

Jim Lingard, the WWTP superintendent, said it is used to enforce the existing sewage discharge limitations. The data can be incorporated into the Pretreatment Program.

It should be noted here that data gathered must be admissible in court. EPA has defined collection and analytical methods applicable to the program. These methods should be used by the WWTP.

2. Will the City's discharge limits be more stringent than the federal limits?

Worth Yoder, the Assistant City Attorney, said they will not, unless something special is found. This is not expected because Elkhart's industries are pretty clean.

3. Are removal credit allowances disallowed if a city has CSO discharge?

Greg Vanderlaan (EPA) said that they are not, so long as there is a cost comparison of separate versus combined sewers. This should be checked into, however, because it is known that if a POTW bypasses to the river more than once a year, no variances will be considered, and CSOs may be considered as bypasses.

Worth Yoder said that the cost of industrial sampling and monitoring will be borne by industries, either as part of their sewage bill or as a separate bill. The unit cost of sampling and monitoring will be high because of the small number of industries anticipated to be included in the program.

The industries seemed to prefer a separate bill.

4. Will self-monitoring be required?

Worth Yoder said that self-monitoring will be the eventual state of the program with periodic verification by POTW personnel. Greg Vanderlaan said EPA specifically requires self-monitoring.

5. EPA has rescinded proposed electroplating standards several times. Will the City's regulations be based on the EPA's in view of possible amendments to the final rule?

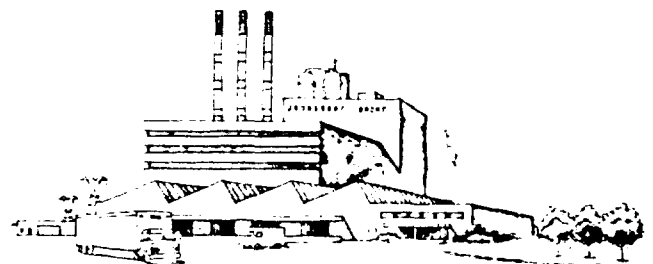
Worth Yoder said that the City's regulations will basically be based on EPA regulations.

Bill Fletcher said the City has to start somewhere and they are likely to start with existing regulations.

4.4.5 Closing Remarks

Maxine Miller closed the meeting by thanking everybody for their interest and cooperation. She mentioned that there will be other meetings during the development of the program. She also said that the City will operate with truth and honesty, and anyone is welcome to contact the City and ask questions. The City will do its best to provide answers.

**Preliminary Visitation ,
Sampling and Monitoring**



Chapter 5

CHAPTER 5

PRELIMINARY VISITATION, SAMPLING, AND MONITORING

5.1 GENERAL

This chapter discusses the preliminary attempts at identifying the volume of flow and character of pollutants discharged by the major industrial wastewater contributors. It also defines the current WWTP laboratory capabilities, as well as the laboratory requirements and preliminary associated costs thereof to undertake an Industrial Surveillance Program (ISP) in the continuous pretreatment program. Essentially, this chapter satisfies the requirements of "Task C - Preliminary Visitation, Sampling, and Monitoring" of the Engineer's Scope of Services (Appendix D).

5.2 INDUSTRIAL OPERATIONS

The Elkhart WWTP samples and monitors six major industries on a continuous basis (Section 3.3.5). A surveillance program, preceded by a surveillance letter and meetings with industries, was undertaken on twenty seven (27) major industries (Section 3.3.6). An industrial questionnaire was mailed to ninety eight (98) industries (Section 4.2). From all the above, information pertinent to control manholes, discharge characteristics, and plant operational and process data was obtained and is summarized hereunder. The detailed data is presented in Chapter 6.

5.2.1 Control Manholes

Industrial wastewater samples must be representative of the respective industrial discharges to the POTW's. In order to obtain a representative sample, control manholes must be identified through an evaluation of the plant sewer network to maintain inclusion of all industrial wastes. A sketch depicting the locations of all wastewater effluent lines was

requested in the questionnaire, and twenty five (25) industries submitted a plant sewer layout. The layouts were helpful in defining control manholes. In addition, control manholes were also defined during the meetings preceding the surveillance program and held between the industrial representatives, and the WWTP personnel.

5.2.2 Discharge Characteristics

Relatively accurate industrial wastewater flows were estimated from metered public water supply data (Section 3.3.4.1) and metered private well water supply data (Section 3.3.4.2). Concentrations of major pollutants in the discharges of several major industries have been defined in one or more of the following documents, namely the SFP, (Section 3.3.1), the EIS Industrial Waste Survey Analysis (Section 3.3.2), the WWTP Sampling Data (Section 3.3.5), and the Surveillance Program (Section 3.3.6). These major pollutants include BOD₅, COD, SS, phosphorus, pH, and six toxic elements namely Copper, Mercury, Chromium, Zinc, Nickel and Cadmium.

Toxic chemicals that are discharged by industries into the sewerage system originate from one of two sources:

1. Raw materials used at the plant;
2. Products or by-products manufactured at the plant.

Toxic chemicals detected in wastewater samples can usually be traced to the areas or processes within the plant utilizing and/or manufacturing the respective raw materials and/or products. Lists of raw materials and/or products and of "Noxious 65" pollutants at the respective plants were requested in the questionnaire (Section 4.2). Questionnaire data can be reviewed in Chapter 6.

5.2.3 Plant Process Data

Plant process data covers operational flow charts, schematic diagrams, process descriptions, and pretreatment facilities. Such data are valuable in reviewing

the various alternatives for operational in-house controls and wastewater pretreatment at each particular industry. Said information was requested in the questionnaire, and whatever pertinent data were sent back are presented in Chapter 6.

5.3 THE LABORATORY

This section comprises a brief description of the existing facility and discusses the laboratory requirements for conducting an ISP.

5.3.1 The Existing Facility

The basic functions of the WWTP laboratory are to take as representative a sample as possible, analyze it accurately, and report it quickly and clearly. The existing laboratory has the essential services, namely distilled water, compressed air, electrical service, water service, bench space, and hood space.

The following is a general inventory of the laboratory equipment and supplies:

1. Bockel Oven: This is used as a drying oven and for residue analysis.
2. Furnace (Hevi-Duty): Used for total volatile solids analyses.
3. Mettler H30 Balance.
4. Coliform Incubator: Used for total fecal coliforms analyses.
5. Fisher Accumet 230 pH Meter.
6. Bausch & Lomb Spec 20: Used for colorimetric phosphorus analyses.
7. Precision Scientific 6-Plate Heating Mantle: Used for COD digestion.
8. Varian 1250 Atomic Absorption Unit: Used for trace elements analyses.
9. Corning Megapure Distillation Unit: Used for preparing distilled water.
10. Toast Master Delux Pressure Cooker: Utilized for phosphorus digestion.
11. Freas 815 Incubator and Refrigerator.
12. One medium size desicator.
13. Glassware: The laboratory needs more pipets and different sizes of graduated cylinders.
14. Chemicals and supplies: Adequate supplies are on hand with no problems in acquiring replacement supplies.
15. Hood: All the hood space is consumed by the large furnace.

5.3.2 Requirements for the Industrial Surveillance Program

Laboratory requirements for conducting an ISP cover both field and laboratory equipment. The criteria used for determining the extent of these requirements and the estimated costs thereof are as follows:

Field Equipment

1. Industrial on-site monitoring efforts would be performed by a single crew.
2. Equipment needs would include furnishing all necessary safety equipment.
3. No existing monitoring equipment can be utilized for this program due to the need for continuous accessibility.
4. The assumption was made that a vehicle is available for continuous use in this program.

Laboratory Equipment

1. In an effort to minimize costs, a review was made of the existing laboratory inventory to determine availability for use in this program (Section 5.3.1). It is anticipated that major equipment obtained for use in the ISP would also be available for other laboratory functions.
2. Laboratory office furniture requirements were assessed on the assumption that no furniture is currently available for ISP personnel. Costs have been included for two additional staff members.
3. In reviewing the conditions at the existing laboratory, it was observed that bench space is not available to accommodate an ISP. Costs associated with bench space normally required for new laboratories of the size anticipated for the ISP have been included in the estimate.

4. Space for sample preparation and storage areas pertaining to the ISP will be independent of currently available space, in order to maintain credibility, exclusivity, and validity of analytical results.
5. Costs have been allocated for additional glassware, chemicals, and miscellaneous equipment to accommodate the expected increased laboratory activities.
6. Costs of additional laboratory building space has not been included in this estimate. This is due to the existence of different options available for expanding the existing facility. Space requirements needed for the anticipated ISP are preliminarily estimated at between 1000 and 1500 square feet. The SFP recommended the construction of a new administration building to house a laboratory, offices, lockers, and plant instrumentation. There is also the alternative of rearranging existing furniture, available samples and field equipment storage areas, and the ability to increase bench space within the existing building while maintaining a workable environment.
7. Costs for expansions of existing internal utilities such as electric, gas vacuum, and water have not been included for the same reasons stated in the previous assumption.

Tables 5.1 and 5.2 have been prepared to provide an itemized listing of equipment needed in the field and the laboratory and estimated costs thereof. In summary it is preliminarily estimated that \$220,000 are required for field and laboratory equipment necessary for the ISP. This preliminary cost is subject to change upon more accurate definition of the exact requirements of the ISP in Phase II.

TABLE 5.1
CITY OF ELKHART
INDUSTRIAL SURVEILLANCE/PRETREATMENT PROGRAM
FIELD EQUIPMENT LIST

<u>Item</u>	<u>Cost*</u>
1. Gas Detector (Enmet CGS-10 Tritector portable gas detector)	\$ 600
2. pH Meter (Corning, Model #610A)	500
3. Dissolved Oxygen Meter (YSI meter, Model #57) (with spare probe and cable repair kit)	1,000
4. Fresh Air Blower Generator (Energair model 1800)	800
5. 35 mm Camera (automatic, with flash attachment)	600
6. Manhole Locator (metal detector)	200
7. Masterflex Pump	200
8. Civil Products Co. weirs (8" - 24" with adaptors)	1,700
9. Automatic Wastewater Samplers(4) (ISCO, QVEC, N-CON) (with extra bottoms)	11,400
10. Flow Recorders (ISCO 1700) (4)	9,600
11. Flow Recorders (Mannings, with spare batteries and charger)	3,900
12. Scott Air Pack	600
13. Manlift	2,100
14. Miscellaneous Safety Equipment (fire extinguisher, safety cones, safety harness, first aid kit, road signs, hardhats, etc.)	500
15. Tripp Light	100
16. Ladder	100
17. Survey Level/Tripod	300
18. Hilti Drill (with drills)	700
Sub-Total	\$34,900
Contingencies @ 20%	7,000
Total Cost	\$41,900

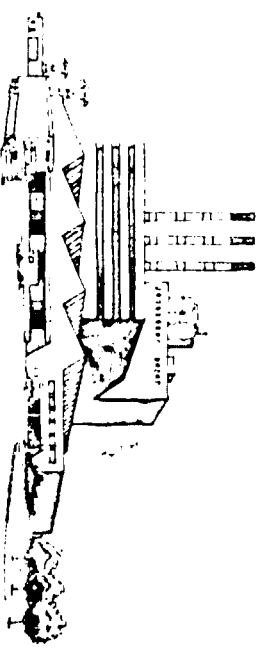
*Costs adjusted to mid 1980 prices.

TABLE 5.2
CITY OF ELKHART
INDUSTRIAL SURVEILLANCE/PRETREATMENT PROGRAM
LABORATORY EQUIPMENT REQUIREMENTS

<u>Item</u>	<u>Cost*</u>
Office Furniture (2 desks, file cabinets)	\$ 2,600
Laboratory Furniture (See attached) (tables, sinks, fixtures, benches, racks, shelving)	71,800
Fume Hoods (in addition to existing)	17,600
Atomic Absorption (additional lamps only)	6,000
Balance Scales (with balance table - in addition to existing)	5,100
Spectrophotometer	existing
pH Meter (with spare electrode - in addition to existing)	1,500
Conductivity Meter (with spare electrode)	800
YSI Dissolved Oxygen Meter (with spare probes and membrane repair kit)	1,100
Steam Bath	600
Constant Temperature Bath	900
Oven (in addition to existing)	800
Muffle Furnace	existing
TKN Apparatus	800
BOD Incubator	3,300
Hot Plate (in addition to existing)	1,000
Refrigeration Unit (in addition to existing)	5,200
Deionized/Distilled Water Unit	4,000
Vacuum Pump	600
Specific Ion Meter (with ammonia probes)	2,100
Dishwasher	500
Carts	800
Pipette Washers	200
Glassware & Miscellaneous Equipment (including drainboards)	9,800
Chemicals	6,600
Miscellaneous Expenses	<u>4,600</u>
Sub-Total	\$148,300
Inflation to Time of Purchase	<u>29,700</u>
TOTAL	\$178,000

*Costs adjusted to mid 1980 prices.

Classification



Chapter 6

CHAPTER 6

CLASSIFICATION

6.1 GENERAL

The previous four chapters discussed several aspects of reconnaissance and data collection, evaluation, and summarization pertaining to the Elkhart industrial establishments and a multitude of related parameters. This chapter comprehensively organizes and presents all the compiled data pertinent to the seventy (70) industries comprising the Master List.

6.2 INDUSTRIAL FILES

One of the first steps taken to organize the acquired data was to compile industrial files, a separate one exclusively for each industry. All collected information pertinent to an industry may be found in that respective industrial file. Each industry was given a file number based on its alphabetic order. These files have not been reproduced in this report or the Appendices, but remain at the SEG offices and will be promptly duplicated and made available upon request.

6.3 DATA COMPILATION AND ORGANIZATION

After many different concepts of data classification and presentation were considered, tabulating pertinent information in sets of charts was selected as the most concise, informative, and useful method of classification. Five (5) sets of charts were devised for this purpose. The files of the five (5) sets of charts are respectively:

1. General Information
2. Water Supply and Wastewater Discharge Data
3. Operational Characteristics
4. Classification and Pretreatment Standards
5. Sampling and Monitoring Requirements

Each set of charts defines the pertinent parameters for each of the seventy (70) industries comprising the Master List. The five (5) sets of charts are discussed in the following sections and are included in this chapter as attachments. The charts are not fully completed at this point in time due either to insufficient data in certain areas or to complete lack of data in other areas. These charts, however, are meant to be dynamic. When additional information becomes available, especially through undertaking Phase II of the program, or when past data is altered, the charts should be revised to include the new information.

It is believed that these sets of charts provide a reliable tool, that if used properly, forms a solid basis for a good and continuously updated industrial pretreatment program in Elkhart, Indiana.

6.3.1 The "General Information" Set of Charts

The name of an industry reveals little about its nature. As such, a basic "General Information" set of charts, which is included as Attachment A to this chapter, was developed and depicts the following for each of the seventy (70) industries:

1. An SEG file number. This number is listed on all the five (5) sets of charts and enables easy retrieval of a particular industrial file.
2. The name, address and telephone number of the firm. This information is also listed on all the five sets of charts.
3. The name(s), title(s), and telephone number(s) of the representative(s) who should be contacted with questions concerning the respective firm.
4. A range of the number of persons employed by the firm.
5. Whether the firm is classified as industrial or commercial.
6. The type(s) of product(s) produced by the firm.

7. Was the firm sent a questionnaire and did the firm respond.
8. A location index number through which the firm may be located on the industrial map of Elkhart depicting the seventy (70) industries (Figure 1).

The sources of all the above information are:

1. The Industrial Directory (Section 3.3.3)
2. The records of the Industrial Wastewater Division at the City Engineer's office.
3. The WWTP records.

The most important conclusions reached on the basis of the data in the "General Information" set of charts are:

1. The ranges in the number of employees at the seventy (70) industries are broken down as depicted in Table 6.1.

TABLE 6.1

BREAKDOWN OF EMPLOYEE NUMBERS
AT THE SEVENTY INDUSTRIES ON THE MASTER LIST

<u>No. of Industries</u>	<u>Range in Employees</u>
16	1-19
5	20-29
6	30-49
12	50-99
13	100-199
7	200-399
1	400-399
1	600-799
1	800-999
3	over 1000
5	currently unknown
TOTAL = 70	

2. The questionnaire was sent to 63 industries on the Master List, and 51 of those replied.

6.3.2 The "Water Supply and Wastewater Discharge Data" Set of Charts

An accurate estimate of the quantity of industrial wastewater flow is vital to the pretreatment program. Records of public water supplies (Section 3.3.4.1) and private well water flows (Section 3.3.4.2) were obtained for sixty-one (61) of the seventy (70) industries on the Master List.

Several of those industries consume water in their products, and consequently, a portion of the water supply is not discharged into the sewer system. To account for this usage, "subtraction meters" are utilized to record the flow consumed in the product. The water supply flows recorded on the "Water Supply and Wastewater Discharge Data" set of charts are the net flows at the respective industries; that is, the total water consumption minus the water consumed in the product. The wastewater discharges are considered to be the sum of the net public and private water supplies.

The "Water Supply and Wastewater Discharge Data" set of charts, which is included as Attachment B to this chapter, contains the following information for each of the seventy (70) industries:

1. The public water supply, private water supply, and wastewater discharge information including account numbers (if available), and whether the respective flows are metered or estimated. For this set of charts, wastewater (sewage) flows are termed "estimated" because there are no flow meters recording the discharges. However, all wastewater flows are reasonably accurate because they are considered to be the sum of the net public and private water supplies which are metered.
2. The respective flows (public water, private water, and wastewater) for the months of December 1978 through June 1979.
3. Any occurrence or potential for occurrence of slug discharges.

4. The mode of discharge, namely whether it is continuous or batch.

The sources of the flow data and the account numbers are:

1. The Elkhart Water Works records (Section 3.3.4.1).
2. The records of the Industrial Wastewater Division at the City Engineer's office.
3. The WWTP records.

There is currently no information on the slug discharge parameter and the mode of discharge. This information is to be obtained as the detailed analysis during Phase II of the program proceeds. At that time, said information will be added to the set of charts.

The main conclusions reached on the basis of the data in the "Water Supply and Wastewater Discharge Data" set of charts are:

1. The wastewater flow ranges for the seventy industries are broken down as depicted in Table 6.2.

TABLE 6.2

BREAKDOWN OF WASTEWATER FLOWS
AT THE SEVENTY INDUSTRIES ON THE MASTER LIST

<u>No. of Industries</u>	<u>Wastewater Flow Range (gpd)</u>
45	0-25,000
9	25,000-100,000
4	100,000-1,000,000
1	> 1,000,000
<u>11</u>	to be documented
TOTAL=70	

The wastewater flows are the averages for the period of December 1978 through June 1979.

2. Of the seventy industries, it is currently known that fifty-eight (58)

have public water meters, and eighteen (18) have private wells. Three (3) of the eighteen that have private wells do not have public water meters. As noted in the previous conclusions, flow information for eleven (11) of the industries is currently unavailable and should be obtained.

6.3.3 The "Operational Characteristics" Set of Charts

Available information on basic operational parameters germane and essential to the pretreatment program is tabulated in the "Operational Characteristics" set of charts, which set is included as Attachment C to this chapter. This set of charts includes, for each of the seventy firms on the Master List of industries, the following information:

1. The number of pipes discharging into the POTWs.
2. Any currently available pretreatment facilities.
3. Whether a plant diagram is available depicting a sewer layout or a process schematic or both.
4. The names and respective amounts of the organic and/or inorganic raw materials utilized by each of the industries.

The sources of whatever information could be obtained pertaining to the above are:

1. The industrial questionnaire (Section 4.2).
2. The surveillance program (Sections 3.3.6 and 4.3).

The main conclusions drawn from the currently available data in the "Operational Characteristics" set of charts are:

1. All the information is as has been reported by the industries. Most of said information has not been verified or substantiated. If such verification is deemed necessary, it should take place during Phase II of the program.

2. As of now, thirty-six (36) of the seventy (70) industries have not provided information on the number of discharge pipes to the POTWs.
3. Only eight (8) of the seventy (70) industries reported some form of pretreatment. The pretreatment processes reported are restricted to pH neutralization, heavy metal precipitation, oil separation, and rinsing. Detailed information on the extent and efficiency of said pretreatment methods is currently unavailable.
4. Twenty-five (25) of the seventy industries submitted a sewer layout with their answered questionnaire. Only ten (10) of the industries submitted a process schematic. The sewer layouts and the process schematics varied in their detail and comprehensiveness. Said layouts and schematics are not reproduced in this report but are available in the industrial files.
5. Thirty-five (35) industries provided information on the raw materials used in their respective operations. Some of the information is incomplete, especially in terms of the exact amounts used. The raw materials range in complexity from cleansers, to acids and bases, to hazardous organic and inorganic chemicals. Whether the chemicals are eventually discharged to the POTWs or not, is not known at this time. Also unknown are the amounts being discharged. Thirteen (13) industries reported that they use none of the materials listed on the Toxic Chemical List (Table 2.2). The sampling and monitoring to be conducted during Phase II of the program will, hopefully, characterize the pollutants in the wastewater discharges.

6.3.4 The "Classification and Pretreatment Standards" Set of Charts

Classification of the industries is essential to making a decision pertinent to their respective pretreatment requirements. As such, the "Classification and Pretreatment Standards" set of charts was developed and is presented as Attachment D to this chapter.

The "Classification" portion of the charts provides the following:

1. The Standard Industrial Classification (SIC) of each of the seventy (70) industries in terms of both the Division and the Code Number.
2. Whether the industry is wet or dry.
3. Whether the industry is major or minor.
4. The category of each respective industry. This refers to the twenty-one (21) industrial categories that the EPA is reviewing under the consent decree (Section 2.2.2).

The SIC was developed by the Office of Federal Statistical Policy and Standards, U.S. Department of Commerce, for the uniform classification of all industrial, commercial, and public establishments. A copy of the "Standard Industrial Classification: Short Titles" is presented in Appendix J.

The wet or dry industrial classification is based on wastewater flows, the number of employees, and types of products. Essentially, wet industries are those that utilize water in one or more of the different processes necessary in the manufacturing of the final product. Dry industries utilize water only for "domestic" type usage. It was assumed that an employee consumes 20 gallons per day. As such, an industry discharging, in gpd, appreciably more than twenty times the number of its employees was considered a wet industry. In case the difference between the daily discharge and twenty times the number of employees was minor, then the type of product was considered in determining whether the industry was wet or dry.

Major industries are those which:

1. Discharge 25,000 gpd or more into the POTWs.
2. Use critical or hazardous raw materials in their manufacturing processes.

3. Are suspected or known to discharge pollutants at concentrations or volumes which may interfere with or inhibit the treatment process.

The following conclusions are reached pertinent to the classification of the seventy (70) industries on the Master List.

1. With the exception of Elkhart General Hospital, all the industries on the Master List are classified under "Division D: Manufacturing" of the SIC. Some industries have more than one SIC code number because they manufacture several products. It should be noted that SIC code numbers are liable to be changed or modified once additional information pertaining to the different products is reached.
2. Currently, thirty-nine (39) industries are classified as wet, twenty-one (21) are classified as dry. It is unknown whether the other ten (10) industries are wet or dry because water consumption and/or employee data is not available.
3. At this time, eighteen (18) of the industries are classified as major and two (2) are classified as minor. The remaining fifty (50) industries cannot be judged as to whether they are major or minor due to the unknown characteristics of their discharges.

In relation to the "Pretreatment Standards" portion of the charts, the following applies:

1. All the industries are subject to Federal prohibited discharge standards (Section 2.2.1).
2. All industries in Elkhart are locally regulated by the Sewer Use Ordinance (Section 2.3 and Appendix B).
3. A majority of the industries will eventually be subject to Federal categorical pretreatment standards once they are promulgated. Applicability provisions of each categorical standard will define

which industries will be included and/or exempted. As of now, only the pretreatment standards for the Electroplating Category have been promulgated and will apply to electroplating industries in Elkhart.

4. The "Pretreatment Standards" portion of the charts has to be continuously updated as more standards and regulations pertaining to industrial pretreatment are promulgated as final rules.

6.3.5 The "Sampling and Monitoring Requirements" Set of Charts

Classification and tabulation of currently available data have been completed with the presentations of the previously discussed four sets of charts. This made clear the fact that appreciable additional information is needed to fully complete said charts and make them up-to-date.

The purpose of the "Sampling and Monitoring Requirements" set of charts, presented as Attachment E to this chapter, is to summarize the major conclusions drawn from the previous four sets of charts, and recommend what monitoring, sampling, and analytical steps should be taken for each of the seventy (70) industries. It is expected that the charts in Attachment E will be completed as the different aspects of Phase II of the pretreatment program are undertaken. Also the information currently presented in the charts, especially pertaining to the parameters to be analyzed, is subject to change as more comprehensive information is gathered.

The "Sampling and Monitoring Requirements" set of charts deals with the following information for each of the seventy (70) industries:

1. Whether the industry attended the public meeting (Section 4.4), and whether a private meeting with the industry is recommended.
2. Whether the industry is to be further investigated or not.
3. Whether the industry is to be sampled or not.
4. The parameters to be analyzed along with the site, the mode, and the results of the analyses.

5. The monitoring requirements including duration and frequency, and whether self-monitoring or City monitoring or both are necessary.

Meetings between industrial representatives, City officials, and the consulting engineer are recommended for the major industries. Also, all the major industries should be included in the Industrial Surveillance Program and are recommended for further investigation. Industries for which sufficient data is not available to date are recommended for further investigation until adequate information is obtained to determine whether that industry will be monitored or not.

As much of the parameters to be analyzed as possible, and the mode of analysis thereof are defined. Such information is preliminary in nature and is obtained from results of the SFP (Section 3.3.1), the EIS Report (Section 3.3.2), the Surveillance Program (Section 3.3.6), and the questionnaire (Section 4.2). This aspect of the program is the one that needs considerable updating as Phase II goes on.

The major conclusions arrived at as a result of available data in the "Sampling and Monitoring Requirements" set of charts are:

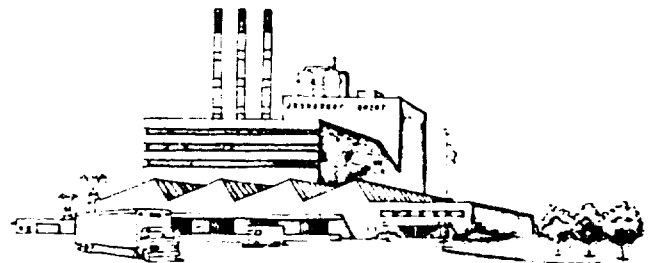
1. Representatives of twenty-six (26) of the seventy (70) industries on the Master List attended the public industrial meeting held on June 26, 1979.
2. At this point, it is recommended that private meetings be held with twenty-five (25) of the industries. These industries are either classified as major and will be included in the Industrial Surveillance Program or are ones for which appreciable additional information is required.
3. Sixty-eight (68) industries are recommended for further investigation due to insufficient data. This is subject to change as more data become available.

4. Thirty-two (32) industries are currently recommended to be sampled. These industries use raw materials that are included on the toxic chemicals list. This is also subject to change as more information becomes available.
5. The parameters to be sampled have been chosen based on currently available information and they are liable to change once more data is gathered during Phase II. Also, the sampling site, the sampling mode, and the monitoring requirements will be defined more clearly as Phase II progresses.

6.4 Industrial Map

An Industrial Location Map of Elkhart, Indiana, was prepared and is presented in Figure 1. The map delineates the location of each of the seventy (70) industries on the Master List. A Location Index, prepared in alphabetic order, gives the file number of each industry, the name of each industry and the street index of each industry. Appreciable help in preparing the map was received from the Industrial Wastewater Division of the City Engineer's Office. It is believed this map will be of utmost use in completing the Elkhart Industrial Pretreatment Program.

"General Information"



Attachment A

GENERAL INFORMATION

FILE NO.	NAME ADDRESS TELEPHONE NUMBER	REPRESENTATIVE TITLE TELEPHONE NO.	NUMBER OF EMPLOYEES	COMMERCIAL OR INDUSTRIAL	TYPE OF PRODUCT	QUESTIONNAIRE		LOCATION INDEX
						SENT	REC'D.	
1	AACOA Attn: Mr. Jerry Formsma 727 Randolph Street Elkhart, IN 46514	Gerald R. Formsma President Noel Jackson Vice President Treasurer John Bylsma Vice President Secretary 264-0012	20-29	Industrial	Integral Color Anodizing Aluminum	3/26/79	4/4/79	H-5
2	Adams and Westlake Company Attn: Mr. Russell O. Anderson 1025 N. Michigan Street Elkhart, IN 46514	T.A. Struve Chairman and President R.E. Delaney Vice President 264-1141	200-399	Industrial	Aluminum Windows and Curtain Walls Mercury Plunger Relays Solid State Devices	3/26/79	4/19/79	H-6
3	Anco Products, Incorporated Attn: Mr. Daniel Singer 2500 South 17th Street Elkhart, IN 46514	Lee Anderson President Daniel Singer Vice President 293-5574	20-29	Industrial	Anco-Flex 181 Flexible Air Ducts	6/25/79	7/6/79	O-5
4	Anderson Silver Plating Co. Attn: Mr. Mike Anderson 541 Industrial Parkway P.O. Box 961 Elkhart, IN 46514	Malcolm S. Anderson President Frank E. Yoder Secretary Michael Anderson Treasurer General Manager 293-6059	20-29	Industrial	Electro- plating	3/26/79	5/10/79	K-13
5	W.T. Armstrong Co., Inc. Attn: Mr. Al Singleton 1000 Industrial Parkway P.O. Box 787 Elkhart, Indiana 46514	Carl E. Burket Chairman of the Board Stanley Stitgen President Jack Burket Executive Vice President 293-8602	200-399	Industrial	Complete Line of Woodward Instruments	3/26/79	4/18/79	L-13
6	Atlas Chemical Milling Attn: Mr. Herman Graboyes 1627 W. Lusher Avenue Elkhart, IN 46514	Herman Graboyes President 295-0277	1-19	Industrial	Steel-Rule Cutting Dies	6/12/79	6/25/79	N-5

GENERAL INFORMATION (CONTINUED)

FILE NO.	NAME ADDRESS TELEPHONE NUMBER	REPRESENTATIVE TITLE TELEPHONE NO.	NUMBER OF EMPLOYEES	COMMERCIAL OR INDUSTRIAL	TYPE OF PRODUCT	QUESTIONNAIRE		LOCATION INDEX
						SENT	REC'D.	
7	Atlas Steel Rule Die, Inc. Attn: Mr. S. Ray Miller, Jr. 2000 Middlebury Street Elkhart, Indiana 46514	S. Ray Miller, Jr. President Frank Helman Vice President Gerald Cook Secretary Treasurer 294-5507	50-99	Industrial	Steel Rule Cutting Dies HERMA press	6/12/79	6/21/79	K-13
8	J.J. Babbitt Company, Inc. Attn: Mr. Eugene B. Reglein 1505 West Beardsley Elkhart, IN 46514	Eugene B. Reglein President William Reglein General Manager Treasurer 293-6514	50-99	Industrial	Clarinet and Saxophone Mouthpieces	4/17/79		I-4
9	Babcock & Wilcox Company Attn: Robert Schneider 935 Plum Street PO Box 1303 Elkhart, IN 46514	Robert Schneider Superintendent 264-0758	50-99	Industrial	Steel Welding and Fittings Stainless Steel Elbows and Is	4/23/79	5/10/79	I-6
10	Vincent Bach Company Attn: Mr. Cliff Cartwright 500 Industrial Parkway Elkhart, IN 46514	H.W. Peterson President Norman Enos Plant Manager 295-6730	200-399	Industrial	Band Instruments	3/26/79	4/6/79	K-13
11	Barger Packaging Corporation Attn: Mr. Don Hoffman 1511 West Lusher Avenue P.O. Box 249 Elkhart, IN 46514	R. Dewey Welch President Chairman of the Board Raymond Speth Vice President 295-6605	50-99	Industrial	Rigid Paper Boxes Folding Cartons Plastic Packaging	4/17/79	4/26/79	N-5
12	E.K. Blessing Co., Inc. 1301 Beardsley Avenue Elkhart, Indiana 46514	Merle O. Johnson, President R. Johnson, Secretary 293-0833	30-49	Industrial	Band Instruments	4/17/79	4/25/79	I-5

GENERAL INFORMATION (CONTINUED)

FILE NO.	NAME ADDRESS TELEPHONE NUMBER	REPRESENTATIVE TITLE TELEPHONE NO.	NUMBER OF EMPLOYEES	COMMERCIAL OR INDUSTRIAL	TYPE OF PRODUCT	QUESTIONNAIRE		LOCATION INDEX
						SENT	REC'D.	
13	CTS Corporation (Plastics Plant) Attn: Mr. Paul Wittman 905 North West Boulevard Elkhart, IN 46514 (Plastics)	Clinton W. Hartman Chairman of the Board Norman Weldon President J.D. DiGirolamo Executive Vice President 293-7511	100-199	Industrial	Variable Resistors Micro-electronic Products Selector Switches Loud Speakers Quartz Crystal Products	4/19/79	5/25/79	I-5
14	CTS of Elkhart, Inc. (Main Plant) Attn: Mr. Paul Wittman 1142 W. Beardsley Avenue Elkhart, IN 46514 (Main)	Charles C. Smith President General Manager R.L. Wilson Sales Manager 295-3575	800-999	Industrial	Variable Resistors Selector Switches Programable Switches Plastics High Voltage Resistors	4/19/79	5/25/79	I-5
15	Conrail Corporation Attn: Mr. John Dinehart Robert Young Yard Elkhart, IN 46514	John Dinehart Maintenance Foreman 293-0431	1000 or more	Commercial	Trans- portating Freight	4/19/79	5/7/79	N-2
16	Dometic Sales Corporation Attn: R.A. Neitzke 2320 Industrial Parkway P.O. Box 490 Elkhart, IN 46514	Yngve Lindholm President Martin Mielke General Manager 294-2511	50-99	Wholesaler	"Dometic" Refrigerator	6/26/79	7/19/79	J-14
17	Domore Office Furniture Attn: J.O. McNamee 2400 Sterling Avenue P.O. Box 1289 Elkhart, IN 46514	J.O. McNamee President K.L. Wheeler Vice President 293-0621	100-199	Industrial	Office Chairs Desk Credenzas Lounge Furniture Tables	6/26/79	7/17/79	O-11
18	Don's Printing Service Attn: Mr. Don Scharrer 1621 West Beardsley P.O. Box 1131 Elkhart, IN 46514	Don Scharrer President Mrs. Don Scharrer Vice President 293-8687	1-19	Commercial	Printing	4/17/79	5/8/79	I-4

GENERAL INFORMATION (CONTINUED)

FILE NO.	NAME ADDRESS TELEPHONE NUMBER	REPRESENTATIVE TITLE TELEPHONE NO.	NUMBER OF EMPLOYEES	COMMERCIAL OR INDUSTRIAL	TYPE OF PRODUCT	QUESTIONNAIRE		LOCATION INDEX
						SENT	REC'D.	
19	Durakool, Incorporated Attn: Mr. George Bucklen 1010 North Main Street P.O. Box 280 Elkhart, IN 46514	Herbert Bucklen Chairman of the Board David D. Webster President George Bucklen Vice President 264-1116	100-199	Industrial	Mercury Switches and Relays Contactors Sight Glasses Hermatic Seals	3/23/79	4/16/79	H-3
20	Elixir Industries Travelers Division Attn: Mr. William McKinney 2040 Toledo Road Elkhart, IN 46514	Ken Ward President Harold Wyland General Manager 294-1651	100-199	Industrial	Sealant Tape Ranges and Stoves (assembly)	6/26/79	7/18/79	L-13
21	Elkhart Brass Mfg. Co., Inc. Attn: Mr. R.F. Holtz Sr. 1302 W. Beardsley Avenue P.O. Box 1127 Elkhart, IN 46514	Russell G. Ashbaugh, Jr. President R.F. Holtz Vice President 295-8330	200-399	Industrial	Fire Protection and Fighting Equipment Brass, Aluminum, and Bronze Products	6/26/79	7/17/79	I-5
22	Elkhart Bridge and Iron Co. Attn: Mr. Martin E. Miller 929 North Michigan Elkhart, IN 46514	Frank E. Miller President Martin A. Miller Vice President 264-2121	100-199	Industrial	Fabricated and Warehouse Structural Steel Steel Work- horse Frames and Components for Recreational Vehicles	6/26/79	7/17/79	I-6
23	Elkhart Foam Products, Co. Attn: F.M. Lima 603 Industrial Parkway Elkhart, IN 46514	Francis M. Lima Plant Manager 294-5663	50-99	Industrial	Polyurethane Foam	6/26/79	7/23/79	K-13
24	Elkhart Foundry and Machine Attn: Mr. Joseph Leaverton 318 South Elkhart Avenue P.O. Box 668 Elkhart, IN 46524	William E. Patterson President and General Manager Joseph Leaverton Executive Vice President 294-2591	100-199	Industrial	Meehanite Grey Iron Castings Cast Iron Basins for Sump Pumps	5/8/79	6/14/79	J-3

GENERAL INFORMATION (CONTINUED)

FILE NO.	NAME ADDRESS TELEPHONE NUMBER	REPRESENTATIVE TITLE TELEPHONE NO.	NUMBER OF EMPLOYEES	COMMERCIAL OR INDUSTRIAL	TYPE OF PRODUCT	QUESTIONNAIRE		LOCATION INDEX
						SENT	REC'D.	
25	Elkhart General Hospital 600 East Boulevard Elkhart, IN 46514					5/9/79		L-5
26	Elkhart Products Corporation Attn: Mr. Robert H. Todd 1255 Oak Street P.O. Box 1008 Elkhart, IN 46514	William F. Walker President Earl L. Nelson Vice President 264-3181	100-199	Industrial	Wrought Copper Solder Joint Fittings Fabricated Tubular Products	4/19/79	4/26/79	H-5
27	Elkhart Rubber Works, Inc. Attn: Mr. Robert T. Duffy 1629 Oakland Avenue P.O. Box 987 Elkhart, IN 46514	George Scott President D.I. Muir Secretary 295-8090	100-199	Industrial	Rubber Products	4/19/79	5/16/79	M-6
28	Elkhart Tool and Die, Inc. Attn: Mr. Brent Brown 2400 South 15th Street Elkhart, IN 46514	John F. Brown President Brent Brown Vice President 295-8500	30-49	Industrial	Parts and Accessories for Recrea- tional Vehicles	6/26/79	7/10/79	N-5
29	Excel Corporation Attn: Mr. Christofer Dersch 1120 North Main Street Elkhart, IN 46514	D.L. Rutter Chairman of the Board J.L. Piety President 264-2131	200-399	Industrial	Automatic Truck and School Bus Parts Aluminum Windows	4/19/79	5/4/79	H-8
30	Federal Paper Board Co., Inc. Attn: Mr. Jake Weaver P.O. Box 1007 Elkhart, IN 46514	W.H. Repass Plant Manager R. Morrison Purchasing Agent 295-7430	200-399	Industrial	Folding Cartons	5/8/79		J-9

GENERAL INFORMATION (CONTINUED)

FILE NO.	NAME ADDRESS TELEPHONE NUMBER	REPRESENTATIVE TITLE TELEPHONE NO.	NUMBER OF EMPLOYEES	COMMERCIAL OR INDUSTRIAL	TYPE OF PRODUCT	QUESTIONNAIRE		LOCATION INDEX
						SENT	REC'D.	
31	Federal Press Company Attn: Ms. Regina L. Baker 500 State Street P.O. Box 400 Elkhart, IN 46514	Leonard Loshbough Chairman of the Board Leonard Loshbough President 293-9541	50-99	Industrial	OBI Presses Straight Presses Dial Feeds Bolt Trimmers	6/26/79		K-9
32	Foamcraft, Incorporated Attn: J. Russell 900 Industrial Parkway Elkhart, IN 46514	James Russell Vice President Doug Ruess Plant Manager 293-8569	30-49	Industrial	Polyurethane Foam Pillows	6/26/79	7/11/79	K-13
33	Franklin Press, Inc. Attn: Mr. Robert DeMeyer 400 West Crawford Street Elkhart, IN 46514	Stanton Williamson President Robert Demeyer Vice President 294-5561	1-19	Commercial	Commercial Printing	4/17/79	4/29/79	I-7
34	Hermaseal Incorporated Attn: Mr. George Bucklen 1106 LaFayette Elkhart, IN 46514	George Bucklen Vice President 264-1116	100-199	Industrial	Switches and Relays	6/26/79		L-6
35	ILC Products Company, Inc. Attn: M. Mynsberge 1819 South 14th Street P.O. Box 338 Elkhart, IN 46514	R.W. Maggs Chairman of the Board G.A. Goulet President 293-6565	50-99	Industrial	Windows for Mobile Homes RV Cap Kit Components	6/26/79	7/12/79	M-5
36	IMC Products Company Attn: Mr. Jack Cook 2115 S. 17th Street P.O. Box 547 Elkhart, IN 46514	Jack Cook General Manager 294-3261	1-19	Industrial	Electroplating Metal Finishing	3/21/79		I-5

GENERAL INFORMATION (CONTINUED)

FILE NO.	NAME ADDRESS TELEPHONE NUMBER	REPRESENTATIVE TITLE TELEPHONE NO.	NUMBER OF EMPLOYEES	COMMERCIAL OR INDUSTRIAL	TYPE OF PRODUCT	QUESTIONNAIRE		LOCATION INDEX
						SENT	REC'D.	
37	Ideal Plating Corporation Attn: Mr. William Thompson 1913 South 14th Street P.O. Box 74 Elkhart, IN 46514	Mrs. George A. Block, Jr. President Leonard Thompson Superintendent 293-5668	20-29	Industrial	Electroplated and Painted Finishes for Industrial Products	3/26/79	3/29/79	M-6
38	Indiana Plastics, Inc. Attn: Mr. John Kruis 2221 Industrial Parkway Elkhart, IN 46514	Herman Kruis President John Kruis Secretary/ Treasurer 294-3253	1-19	Industrial	Injection Molding	5/15/79		J-14
39	Instant Copy of Indiana Attn: Mr. Frank Lorentz 201 West Marion Street Elkhart, IN 46514	Frank Lorentz Manager 293-6913	1-19	Commercial	Instant Printing	4/17/79	5/11/79	K-8
40	J & K Oil Company, Inc. Attn: Mr. Richard Brothersor 901 Lafayette Street Elkhart, IN 46514	Richard Brothersor President 294-1696	1-19	Commercial	Gasoline and Oil Products	5/26/79	7/9/79	L-6
41	Jessen Manufacturing Company 1409 W. Beardsley Elkhart, IN 46514	John H. Jessen President 295-3836	100-199	Industrial	Metal Parts	7/9/79		I-5
42	Ken's Quality Print Shop 116 Harrison Street Elkhart, IN 46514			Industrial		4/17/79	4/25/79	K-13

GENERAL INFORMATION (CONTINUED)

FILE NO.	NAME ADDRESS TELEPHONE NUMBER	REPRESENTATIVE TITLE TELEPHONE NO.	NUMBER OF EMPLOYEES	COMMERCIAL OR INDUSTRIAL	TYPE OF PRODUCT	QUESTIONNAIRE		LOCATION INDEX
						SENT	REC'D.	
43	Kent Company Attn: R.A. Neitzke 2310 Industrial Parkway Elkhart, IN 46514	Yngve Lindholm President Martin Mielke General Manager 294-2511	50-99	Commercial	"Domestic" Refrigerator	No		J-15
44	Kiefer and Sons, Inc. Attn: Mr. Ray Kiefer 1613 Cassopolis Street Elkhart, IN 46514	K.M. Kiefer President Jack Demas Vice President 264-3380	1-19	Industrial	Polishing and Plating	3/26/79	3/28/79	G-8
45	L & J Press Corporation Attn: R.D. Mathias 1641 Sterling Avenue Elkhart, IN 46514	R.D. Mathias Jr. President 294-2694	50-99	Industrial	Power Presses	6/26/79	7/17/79	M-10
46	Labour Pump Attn: Mr. William E. Barret 1607 Sterling PO Box 1187 Elkhart, IN 46514	R.W. Gorden Bullen President William E. Barrett Controller 293-6578	100-199	Industrial	Centrifugal and Rotary Pumps; Horizontal and Vertical	7/9/79	7/18/79	M-10
47	Madden Corporation Attn: Mr. James B. Madden 1317 Princeton Boulevard Elkhart, IN 46514	James B. Madden President D.K. Gedman Secretary 295-4292	1-19	Industrial	Metering Pumps Chemical Feed Systems Orifice Meters Heat Reclaimer Systems	6/26/79	7/13/79	L-9
48	McDowell Enterprises, Inc. Attn: Mr. William McDowell 2010 Superior Street P.O. Box 391 Elkhart, IN 46514	William S. McDowell President 293-1042	30-49	Industrial	Electroplating	3/26/79		J-12

GENERAL INFORMATION (CONTINUED)

FILE NO.	NAME ADDRESS TELEPHONE NUMBER	REPRESENTATIVE TITLE TELEPHONE NO.	NUMBER OF EMPLOYEES	COMMERCIAL OR INDUSTRIAL	TYPE OF PRODUCT	QUESTIONNAIRE		LOCATION INDEX
						SENT	REC'D.	
49	Miles Laboratories, Inc. Attn: Mr. Elmer Hartgerink 1127 Myrtle Street Elkhart, IN 46514	W.A. Compton, M.D. Chairman of the Board Rowland G. Rose President R.C. Huber Director of Corporate Engineering 264-8111	Over 1000	Industrial	Pharmaceuticals Electronic Medical Instruments Household Cleansers Vitamins	4/19/79	6/5/79	H-5
50	Modern Printers & Duplicators Attn: Mr. Robert L. Fruchey 1400 Princeton Elkhart, IN 46514	Robert L. Fruchey Owner 293-1695	1-19	Commercial	Printing	4/17/79	5/15/79	L-10
51	NIBCO Incorporated Attn: Mr. Walt Dintaman 500 Simpson Street Elkhart, IN 46514	Lee Martin C.E.O. James E. Hostetler President 295-3000	400-599	Industrial	Valves and Fittings for Plumbing Heating and Cooling Industries	4/19/79	5/3/79	K-12
52	North Side Tool & Engineer Attn: 1731 Cassopolis Street Elkhart, IN 46514	John R. Abel President 264-6241	1-19	Industrial	Corrugated Boxes and Inner Packing	No		F-8
53	Philips Industries Dexter Axle/Roof Group 2030 South Main Street PO Box 250 Elkhart, IN 46514 Attn: Mr. William Kay	Richard E. Dexter Group Manager 293-5551	100-199	Industrial	Axles, Wheels Roofs, Brakes and suspension for M.H. and RV Industries	6/27/79		J-15
54	Pulp Products Corporation Attn: Mr. Phillip Eddy 800-C Industrial Parkway P.O. Box 476 Elkhart, IN 46514	G. Phillip Eddy President 294-6456	1-19	Industrial	Corrugated Boxes and Inner Packing	6/28/79	7/9/79	K-13

GENERAL INFORMATION (CONTINUED)

FILE NO.	NAME ADDRESS TELEPHONE NUMBER	REPRESENTATIVE TITLE TELEPHONE NO.	NUMBER OF EMPLOYEES	COMMERCIAL OR INDUSTRIAL	TYPE OF PRODUCT	QUESTIONNAIRE		LOCATION INDEX
						SENT	REC'D.	
55	Routson Brass Foundry, Inc. Attn: Mr. Robert Theirback 2652 South Main Street Elkhart, IN 46514	Charles E. Troyer President John A. Troyer Vice President 293-0941	20-29	Industrial	Casting and Polishing Musical Instrument Key Casings in Brass and Nickel	5/8/79		0-11
56	Selmer Company Attn: Mr. Cliff Cartwright P.O. Box 310 1119-1120 North Main Street Elkhart, IN 46514	H.W. Peterson President Fred Mohr Purchasing Agent Richard Stackhouse Manager Indust- rial Relations 264-4141	Over 1000	Industrial	Musical Instruments	4/19/79	5/15/79	H-7
57	Selmers Attn: Mr. Cliff Cartwright 2100 Industrial Parkway Elkhart, IN 46514	H.W. Peterson President 264-4141		Industrial	Warehouse for Musical Instruments	4/19/79	5/15/79	J-14
58	Selmers Attn: Mr. Cliff Cartwright 2415 Industrial Parkway Elkhart, IN 46514	H.W. Peterson President 264-4141		Industrial	Cases for Musical Instruments	4/19/79	5/15/79	J-14
59	South Side Plating Works, Inc. Attn: Mr. Robert McDowell 2306 South Main Street Elkhart, IN 46514	Richard M. McDowell President Robert M. McDowell Vice President and Treasurer 293-5508	1-19	Industrial	Electroplating	3/26/79		N-10
60	Standard Tool & Machine, Inc. Attn: Mr. Merritt B. Havens 1313 West Beardsley Avenue Elkhart, IN 46514	Merritt B. Havens President Merritt, Ned, and Don Havens Owners 293-3790	1-19		Small Metal Stamping Dies Punch Press Work	No		I-5

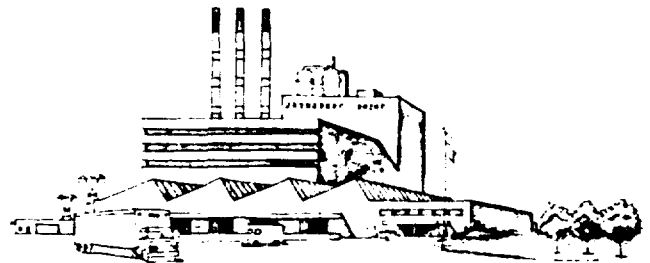
GENERAL INFORMATION (CONTINUED)

FILE NO.	NAME ADDRESS TELEPHONE NUMBER	REPRESENTATIVE TITLE TELEPHONE NO.	NUMBER OF EMPLOYEES	COMMERCIAL OR INDUSTRIAL	TYPE OF PRODUCT	QUESTIONNAIRE		LOCATION INDEX
						SENT	REC'D.	
61	Starr Machine 1620 Middlebury Street Elkhart, IN 46514	David Steede 295-6480	50-99	Industrial	Tool and Dies	6/28/79	9/4/79	K-12
62	Strong Steel Attn: Mr. Earl Messmore 1401 Concord Elkhart, IN 46514	Earl Messmore President 295-8513	1-19	Industrial	Steel Fabricators	No		N-5
63	Taylor Products Division Attn: H.Z. Bognar 1100 West Beardsley Elkhart, IN 46514	F.E. Clymer General Manager H.V. Bognar Asst. General Manager 295-6660	200-399	Industrial	Tube Forming Stampings Copper and Silver Brazed Assemblies	4/19/79		I-5
64	Teledyne Metal Forming Attn: L.E. BeMiller 1937 Sterling Avenue P.O. Box 757 Elkhart, IN 46514	Louis E. BeMiller President Leonard Gross Controller 295-5525	50-99	Industrial	Welded Alloy Tubing Rolled Metal Shapes	6/28/79		N-10
65	Tenneco Chemicals Attn: Mr. John Wise 1500 West Lusher Avenue Elkhart, IN 46514	John Wise Plant Manager 293-2529	30-49	Industrial	Polyurethane Foam	No		N-5
66	Thermco Products Attn: Mr. John Tedstrom 1800 Fieldhouse Elkhart, IN 46514	John Tedstrom Owner 293-3581	1-19	Industrial	Custom Formed Plastic Products	No		N-4

GENERAL INFORMATION (CONTINUED)

FILE NO.	NAME ADDRESS TELEPHONE NUMBER	REPRESENTATIVE TITLE TELEPHONE NO.	NUMBER OF EMPLOYEES	COMMERCIAL OR INDUSTRIAL	TYPE OF PRODUCT	QUESTIONNAIRE		LOCATION INDEX
						SENT	REC'D.	
67	Thompson Mfg. Company, Inc. Attn: Mr. Richard A. Thompson 318 Elm Street Elkhart, IN 46514	Richard A. Thompson President Tom J. Heeter Vice President 294-1502	30-49	Industrial	Screw Machine Products	No		I-8
68	Truth Publishing Co. Attn: Mr. David L. Klahr 421 So. Second Street Elkhart, IN 46514	John F. Dille, Jr. President R.P. Williams Secretary/ Treasurer David L. Klahr Asst. Secretary 294-1661	100-199	Commercial	Daily Newspaper	4/19/79	5/9/79	L-5
69	Walter Piano Company, Inc. 700 W. Beardsley Avenue Elkhart, IN 46514			Industrial		5/8/79	5/16/79	I-6
70	Whitehall Laboratories Attn: Mr. Joe Breit 1919 Superior Street Elkhart, IN 46514	Paul F. Brant Asst. Vice President and Plant Manager Gerald Delaney Purchasing Agent 294-5651	600-799	Industrial	Packaged Over-the-Counter Drugs	4/19/79	5/9/79	J-12

**"Water Supply and
Wastewater Discharge"**



Attachment B

NOTE:

For this set of charts, wastewater (sewage) flows are termed "estimated" because there are no flow meters recording the discharges. However, all wastewater flows are reasonably accurate because they are considered to be the sum of the net public and private water supplies which are metered (Section 3.3.4).

WATER SUPPLY AND WASTEWATER DISCHARGE DATA

FILE NO.	NAME ADDRESS TELEPHONE NUMBER	WATER SUPPLY AND DISCHARGE										SLUG DIS- CHARGE	MODE OF DIS- CHARGE
		WATER TYPE	ACCT. NO.	MET. OR EST.	FLOW (gpd; in 1979)								
					DEC. (78)	JAN.	FEB.	MAR.	APR.	MAY	JUN.		
1	AACOA Attn: Mr. Jerry Formsma 727 Randolph Street Elkhart, IN 46514												
2	Adams and Westlake Company Attn: Mr. Russell O. Anderson 1025 N. Michigan Street Elkhart, IN 46514 *Flow in mgd	City City City Well* Water Sewage*	1560 1561 1570	Met. Met. - Est.	31923 362 - 0.31 0.34	83993 724 - 0.23 0.31	59252 695 - 0.25 0.31	23405 265 - 0.21 0.23	24185 274 - 0.28 0.30	17553 241 - 0.20 0.22	14686 2992 - 0.25 0.27		
3	Anco Products, Incorporated Attn: Mr. Daniel Singer 2500 South 17th Street Elkhart, IN 46514	City Well Water Sewage	2130	Met. Est.	3137 3137	2582 2582	3366 3366	2751 2751	2842 0 2842	3185 0 3185	3017 0 3017		
4	Anderson Silver Plating Co. Attn: Mr. Mike Anderson 541 Industrial Parkway P.O. Box 961 Elkhart, IN 46514	City Sewage	2900	Met. Est.	5070 5070	6970 6970	6358 6358	6491 6491	6707 6707	7311 7311	7829 7829		
5	W.T. Armstrong Co., Inc. Attn: Mr. Al Singleton 1000 Industrial Parkway P.O. Box 787 Elkhart, Indiana 46514	City Sewage	2879	Met. Est.					8228 8228	16287 16287	16207 16207		
6	Atlas Chemical Milling Attn: Mr. Herman Graboyes 1627 W. Lusher Avenue Elkhart, IN 46514	City Sewage	2092	Met. Est.	- -	- -	1843 1843	1617 1617	1671 1671	2027 2027	5361 5361		

*METERED OR ESTIMATED

WATER SUPPLY AND WASTEWATER DISCHARGE DATA, (CONT.)

FILE NO.	NAME ADDRESS TELEPHONE NUMBER	WATER SUPPLY AND DISCHARGE										SLUG DIS-CHARGE	MODE OF DIS-CHARGE
		WATER TYPE	ACCT. NO.	MET. * OR EST.	FLOW (gpd; in 1979)								
					DEC. (78)	JAN.	FEB.	MAR.	APR.	MAY	JUN.		
7	Atlas Steel Rule Die, Inc. Attn: Mr. S. Ray Miller, Jr. 2000 Middlebury Street Elkhart, Indiana 46514	City Sewage	2894	Met. Est.	6925 6925	8542 8542	8682 8682	8831 8831	9126 9126	11461 11461	13339 13339		
8	J.J. Babbitt Company, Inc. Attn: Mr. Eugene B. Reglein 1505 West Beardsley Elkhart, IN 46514	City Sewage	4410	Met. (quart.) Est.					468 468	468 468	468 468		
9	Babcock & Wilcox Company Attn: Robert Schneider 935 Plum Street PO Box 1303 Elkhart, IN 46514	City Well Water Sewage	1730 1730	Met. Met. Est.	42250 34457 76707	57017 28473 85480	49448 12716 62164	36797 9325 46122	38023 18949 56972	39642 19747 59389	45503 32388 77891		
10	Vincent Bach Company Attn: Mr. Cliff Cartwright 500 Industrial Parkway Elkhart, IN 46514	City City Sewage	2761 2762	Met. Met. Est.	69998 - 69998	111355 - 111355	99698 - 99698	94706 - 94706	97863 - 97863	93283 507 93790	90508 2294 92802		
11	Barger Packaging Corporation Attn: Mr. Don Hoffman 1511 West Lusher Avenue P.O. Box 249 Elkhart, IN 46514	City Sewage	7030	Met. (quart.) Est.					2491 2491	2491 2491	2491 2491		
12	E.K. Blessing Co., Inc. 1301 Beardsley Avenue Elkhart, Indiana 46514												

WATER SUPPLY AND WASTEWATER DISCHARGE DATA, (CONT.)

FILE NO.	NAME ADDRESS TELEPHONE NUMBER	WATER SUPPLY AND DISCHARGE										SLUG DIS-CHARGE	MODE OF DIS-CHARGE
		WATER TYPE	ACCT. NO.	MET. * OR EST.	FLOW (gpd; in 1979)								
					DEC. (78)	JAN.	FEB.	MAR.	APR.	MAY	JUN.		
13	CTS Corporation (Plastics Plant) Attn: Mr. Paul Wittman 905 North West Boulevard Elkhart, IN 46514 *Flow in mgd	City	1762	Met.	-	-	-	627					
		City	1807	Met.	11630	14574	9403	8131	11370	12016	13589		
		Well*	1806	Met.	0.15	0.12	0.18	0.13	0.18	0.24	0.17		
		Water Sewage*		Est.	0.16	0.13	0.19	0.14	0.19	0.26	0.18		
14	CTS of Elkhart, Inc. (Main Plant) Attn: Mr. Paul Wittman 1142 W. Beardsley Avenue Elkhart, IN 46514	City	1760	Met.	16625	4126	9991	10617	8402	8710	8502		
		Well		Met.	66198	62034	81806	67419	63729	73678	74076		
		Water Sewage			82823	66160	91797	78036	72131	82388	82578		
15	Conrail Corporation Attn: Mr. John Dinehart Robert Young Yard Elkhart, IN 46514 *Flow in mgd	Well*	3564	Est.	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
		Water Sewage*		Est.	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
16	Dometic Sales Corporation Attn: R.A. Neitzke 2320 Industrial Parkway P.O. Box 490 Elkhart, IN 46514	City	2805	Met.	17107	19834	21825	16432	16980	21040	34208		
		Sewage		Est.	17107	19834	21825	16432	16980	21040	34208		
17	Domore Office Furniture Attn: J.O. McNamee 2400 Sterling Avenue P.O. Box 1289 Elkhart, IN 46514	City	2310	Met.	893	531	801	410					
		City	2570	Met.	5236	5742	6411	5815	6009	7287	9051		
		Sewage		Est.	6139	6273	7212	6225	6009	7287	9051		
18	Don's Printing Service Attn: Mr. Don Scharrer 1621 West Beardsley P.O. Box 1131 Elkhart, IN 46514	City	4422	Met. (quart.)					222	222	222		
		Sewage		Est.					222	222	222		

*METERED OR ESTIMATED

WATER SUPPLY AND WASTEWATER DISCHARGE DATA, (CONT.)

FILE NO.	NAME ADDRESS TELEPHONE NUMBER	WATER SUPPLY AND DISCHARGE										SLUG DIS- CHARGE	MODE OF DIS- CHARGE
		WATER TYPE	ACCT. NO.	MET. * OR EST.	FLOW (gpd; in 1979)								
					DEC. (78)	JAN.	FEB.	MAR.	APR.	MAY	JUN.		
19	Durakool, Incorporated Attn: Mr. George Bucklen 1010 North Main Street P.O. Box 280 Elkhart, IN 46514	City Sewage	1482	Met. Est.	3885 3885	4391 4391	4648 4648	3861 3861	3989 3989	4440 4440	5311 5311		
20	Elixir Industries Travelers Division Attn: Mr. William McKinney 2040 Toledo Road Elkhart, IN 46514	City City Well Water Sewage	2776 2780	Met. Met. Met. Est.	2196 796 474 3466	3837 1231 324 5392	3152 1229 573 4954	3619 724 100 4443	3740 748 324 4812	3306 869 199 4374	4313 573 175 5061		
21	Elkhart Brass Mfg. Co., Inc. Attn: Mr. R.F. Holtz Sr. 1302 W. Beardsley Avenue P.O. Box 1127 Elkhart, IN 46514	City Sewage	1768	Met. Est.	14502 14502	7094 7094	0 0	893 893	922 922	0 0	12467 12467		
22	Elkhart Bridge and Iron Co. Attn: Mr. Martin E. Miller 929 North Michigan Elkhart, IN 46514	City City City Sewage	1540 1541 1550	Met. Met. Met. Est.	265 338 6225 6828	217 483 7794 8494	107 321 6866 7294	169 290 5019 5478	174 299 5186 5659	169 265 7745 8179	598 324 7530 8452		
23	Elkhart Foam Products, Co. Attn: FLM. Lima 603 Industrial Parkway Elkhart, IN 46514	City Sewage	2904	Met. Est.	965 965	1158 1158	9884 9884	869 869	898 898	1279 1279	1147 1147		
24	Elkhart Foundry and Machine Attn: Mr. Joseph Leaverton 318 South Elkhart Avenue P.O. Box 668 Elkhart, IN 46524	City City City Well Water Sewage	1040 1045 1050 1045	Met. Met. Met. Met.	145 11727 2172 14044	241 13416 1786 15443	267 14346 2191 16804	193 11944 3016 15153	199 12342 3117 20021	410 15129 3933 24418	274 17229 1845 5211 24559		

*METERED OR ESTIMATED

WATER SUPPLY AND WASTEWATER DISCHARGE DATA, (CONT.)

FILE NO.	NAME ADDRESS TELEPHONE NUMBER	WATER SUPPLY AND DISCHARGE -										SLUG DIS-CHARGE	MODE OF DIS-CHARGE
		WATER TYPE	ACCT. NO.	MET. * OR EST.	FLOW (gpd; in 1979)								
					DEC. (78)	JAN.	FEB.	MAR.	APR.	MAY	JUN.		
25	Elkhart General Hospital 600 East Boulevard Elkhart, IN 46514												
26	Elkhart Products Corporation Attn: Mr. Robert H. Todd 1255 Oak Street P.O. Box 1008 Elkhart, IN 46514	City Well Water Sewage	1782	Met. Met. Est.	6611 36099 42710	9145 37955 47100	9003 44890 53893	6877 63742 70619	7106 63102 70208	7818 85084 92902	7605 38780 46385		
27	Elkhart Rubber Works, Inc. Attn: Mr. Robert T. Duffy 1629 Oakland Avenue P.O. Box 987 Elkhart, IN 46514	City City Well Water Sewage	2030 2030	Met. Met. Est.	700 28598 29298	1158 17253 19411	508 41863 42371	483 30842 31325	499 15583 60388	2051 15515 44095	1521 15533 76993		
28	Elkhart Tool and Die, Inc. Attn: Mr. Brent Brown 2400 South 15th Street Elkhart, IN 46514	City Sewage	2171	Met. Est.	1737 1737	3064 3064	2588 2588	2389 2389	2468 2468	2099 2099	1720 1720		
29	Excel Corporation Attn: Mr. Christofer Dersch 1120 North Main Street Elkhart, IN 46514 *flow in mgd	City* Sewage*	1440	Met. Est.	0.10 0.10	0.12 0.12	0.12 0.12	0.09 0.09	0.09 0.09	0.11 0.11	0.11 0.11		
30	Federal Paper Board Co., Inc. Attn: Mr. Jake Weaver P.O. Box 1007 Elkhart, IN 46514	Well Water Sewage	2938	Met. Est.	30403 30403	38736 38736	53457 53457	21700 21700	8253 8253	5236 5236	5909 5909		

WATER SUPPLY AND WASTEWATER DISCHARGE DATA, (CONT.)

FILE NO.	NAME ADDRESS TELEPHONE NUMBER	WATER SUPPLY AND DISCHARGE										SLUG DIS-CHARGE	MODE OF DIS-CHARGE	
		WATER TYPE	ACCT. NO.	MET. * OR EST.	FLOW (gpd; in 1979)									
					DEC. (78)	JAN.	FEB.	MAR.	APR.	MAY	JUN.			
31	Federal Press Company Attn: Ms. Regina L. Baker 500 State Street P.O. Box 400 Elkhart, IN 46514	City Sewage	2926	Met. Est.	72 72	96 96	80 80	72 72	75 75	96 96	100 100			
32	Foamcraft, Incorporated Attn: J. Russell 900 Industrial Parkway Elkhart, IN 46514	City City Sewage	2874 2875	Met. Met. Est.	24 314 338	121 434 555	0 988 988	820 531 1351	848 548 1396	531 314 845	324 249 573			
33	Franklin Press, Inc. Attn: Mr. Robert DeMeyer 400 West Crawford Street Elkhart, IN 46514	City Sewage	1510	Met. Est.	483 483	507 507	347 347	748 748	773 773	531 531	299 299			
34	Hermaseal Incorporated Attn: Mr. George Bucklen 1106 LaFayette Elkhart, IN 46514	City Sewage	1970	Met. Est.	5960 5960	7142 7142	7106 7106	6611 6611	6832 6832	6973 6973	6757 6757			
35	ILC Products Company, Inc. Attn: M. Mynsberge 1819 South 14th Street P.O. Box 338 Elkhart, IN 46514	City Sewage	2070	Met. Est.	2485 2485	4198 4198	4515 4515	4078 4078	4214 4214	4995 4995	3840 3840			
36	IMC Products Company Attn: Mr. Jack Cook 2115 S. 17th Street PO Box 547 Elkhart, IN 46514	City Well Water Sewage	2108	Met. Met. Est.	169 11369 12538	724 10172 10886	508 11793 12301	193 14610 14703		12366 8602 12366		10222 10222		

WATER SUPPLY AND WASTEWATER DISCHARGE DATA, (CONT.)

FILE NO.	NAME ADDRESS TELEPHONE NUMBER	WATER SUPPLY AND DISCHARGE										SLUG DIS- CHARGE	MODE OF DIS- CHARGE
		WATER TYPE	ACCT. NO.	MET. * OR EST.	FLOW (gpd; in 1979)								
					DEC. (78)	JAN.	FEB.	MAR.	APR.	MAY	JUN.		
37	Ideal Plating Corporation Attn: Mr. William Thompson 1913 South 14th Street P.O. Box 74 Elkhart, IN 46514	City Sewage	2080	Met. Est.	30596 30596	31175 31175	35236 35235	26301 26301	27177 27177	28979 28979	23163 23163		
38	Indiana Plastics, Inc. Attn: Mr. John Kruis 2221 Industrial Parkway Elkhart, IN 46514	City Sewage	2803	Met. Est.					0 0	0 0	0 0		
39	Instant Copy of Indiana Attn: Mr. Frank Lorentz 201 West Marion Street Elkhart, IN 46514	City Sewage	9488	Met. (quart.) Est.					501 501	501 501	501 501		
40	J & K Oil Company, Inc. Attn: Mr. Richard Brothersor 901 Lafayette Street Elkhart, IN 46514	City Sewage	4988	Met. (quart.) Est.					131 131	131 131	131 131		
41	Jessen Manufacturing Company 1409 W. Beardsley Elkhart, IN 46514												
42	Ken's Quality Print Shop 116 Harrison Street Elkhart, IN 46514												

*METERED OR ESTIMATED

WATER SUPPLY AND WASTEWATER DISCHARGE DATA, (CONT.)

FILE NO.	NAME ADDRESS TELEPHONE NUMBER	WATER SUPPLY AND DISCHARGE										SLUG DIS-CHARGE	MODE OF DIS-CHARGE
		WATER TYPE	ACCT. NO.	MET. * OR EST.	FLOW (gpd; in 1979)								
					DEC. (78)	JAN.	FEB.	MAR.	APR.	MAY	JUN.		
43	Kent Company Attn: R.A. Neitzke 2310 Industrial Parkway Elkhart, IN 46514	City Sewage	2806	Met. Est.	1062 1062	2027 2027	1416 1416	1544 1544	1596 1596	3233 3233	1845 1845		
44	Kiefer and Sons, Inc. Attn: Mr. Ray Kiefer 1613 Cassopolis Street Elkhart, IN 46514	City Sewage	1398	Met. Est.	5212 5212	6225 6225	5370 5370	4512 4512	4662 4662	5936 5936	5361 5361		
45	L & J Press Corporation Attn: R.D. Mathias 1641 Sterling Avenue Elkhart, IN 46514	City Sewage	2660	Met. Est.	676 676	1231 1231	1309 1309	1231 1231	1272 1272	1448 1448	1346 1346		
46	Labour Pump Attn: Mr. William E. Barret 1607 Sterling PO Box 1187 Elkhart, IN 46514												
7	Madden Corporation Attn: Mr. James B. Madden 1317 Princeton Boulevard Elkhart, IN 46514	City Sewage	2690	Met. Est.	290 290	338 338	487 487	97 97	100 100	362 362	499 499		
3	McDowell Enterprises, Inc. Attn: Mr. William McDowell 2010 Superior Street P.O. Box 391 Elkhart, IN 46514	Well Water Sewage	1160	Met. Est.	16306 16306	13862 13862	11668 11668	11569 11569	15907 15907	12940 12940	13763 13763		

WATER SUPPLY AND WASTEWATER DISCHARGE DATA, (CONT.)

FILE NO.	NAME ADDRESS TELEPHONE NUMBER	WATER SUPPLY AND DISCHARGE										SLUG DIS-CHARGE	MODE OF DIS-CHARGE
		WATER TYPE	ACCT. NO.	MET. * OR EST.	FLOW (gpd; in 1979)								
					DEC. (78)	JAN.	FEB.	MAR.	APR.	MAY	JUN.		
49	Miles Laboratories, Inc. Attn: Mr. Elmer Hartgerink 1127 Myrtle Street Elkhart, IN 46514 *Flow in mgd	City* Well* Water Sewage*		Met. Est. Est.	2.26 0.60 2.86	1.98 0.60 2.58	2.11 0.60 2.71	2.32 0.60 2.92	2.10 0.60 2.70	2.10 0.60 2.70	2.18 0.60 2.78		
50	Modern Printers & Duplicators Attn: Mr. Robert L. Fruchey 1400 Princeton Elkhart, IN 46514	City Sewage	6064	Met. (quart.) Est.					90 90	90 90	90 90		
51	NIBCO Incorporated Attn: Mr. Walt Dintaman 500 Simpson Street Elkhart, IN 46514	City City Well Water Sewage	1210 1212	Met. Met. Met. Est.	1134 51686 52820	1351 61236 62587	1362 67494 68856	1038 73078 74116	14337 90508 104845	15684 67943 83627	17802 54554 72356		
52	North Side Tool & Engineer Attn: 1731 Cassopolis Street Elkhart, IN 46514 No Water Service												
53	Philips Industries Dexter Axle/Roof Group 2030 South Main Street PO Box 250 Elkhart, IN 46514	City Sewage	1394	Met. Est.	169 169	2823 2823	882 882	145 145	150 150	121 121	100 100		
54	Pulp Products Corporation Attn: Mr. Phillip Eddy 800-C Industrial Parkway P.O. Box 476 Elkhart, IN 46514	City Sewage	2873	Met. Est.	169 169	241 241	240 240	265 265	274 274	217 217	224 224		

*METERED OR ESTIMATED

WATER SUPPLY AND WASTEWATER DISCHARGE DATA, (CONT.)

FILE NO.	NAME ADDRESS TELEPHONE NUMBER	WATER SUPPLY AND DISCHARGE										SLUG DIS-CHARGE	MODE OF DIS-CHARGE
		WATER TYPE	ACCT. NO.	MET. * OR EST.	FLOW (gpd; in 1979)								
					DEC. (78)	JAN.	FEB.	MAR.	APR.	MAY	JUN.		
55	Routson Brass Foundry, Inc. Attn: Mr. Robert Theirback 2652 South Main Street Elkhart, IN 46514	City Sewage	63894	Met. (quart.) Est.					781 781	781 781	781 781		
56	Selmer Company Attn: Mr. Cliff Cartwright P.O. Box 310 1119-1120 North Main Street Elkhart, IN 46514	City Sewage	1470	Met. Est.	11510 11510	17301 17301	20463 20463	15973 15973	16506 16506	18483 18483	23163 23163		
57	Selmers Attn: Mr. Cliff Cartwright 2100 Industrial Parkway Elkhart, IN 46514	City City Sewage	2783 2784	Met. Met. Est.	- - -	- - -	- 27 27	- 24 24	- 25 25	0 24 24	0 0 0		
58	Selmers Attn: Mr. Cliff Cartwright 2415 Industrial Parkway Elkhart, IN 46514	City Sewage	2807	Met. Est.	483 483	579 579	534 534	507 507	524 524	531 531	524 524		
59	South Side Plating Works, Inc Attn: Mr. Robert McDowell 2306 South Main Street Elkhart, IN 46514	City Well Water Sewage	2370	Met. Met. Est.	314 598 912	314 673 987	454 673 1127	458 349 807	1845 673 1518	2172 673 2845	1995 523 2418		
60	Standard Tool & Machine, Inc. Attn: Mr. Merritt B. Havens 1313 West Beardsley Avenue Elkhart, IN 46514	City Sewage	14392	Met. (quart.) Est.					189 189	189 189	189 189		

WATER SUPPLY AND WASTEWATER DISCHARGE DATA, (CONT.)

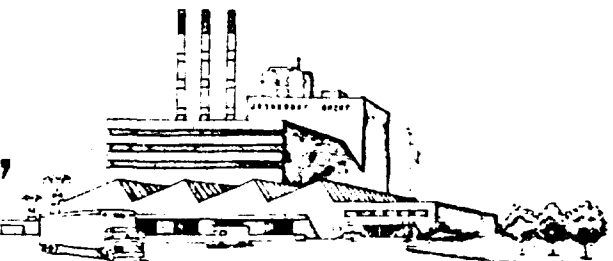
FILE NO.	NAME ADDRESS TELEPHONE NUMBER	WATER SUPPLY AND DISCHARGE										SLUG DIS-CHARGE	MODE OF DIS-CHARGE
		WATER TYPE	ACCT. NO.	MET. * OR EST.	FLOW (gpd; in 1979)								
					DEC. (78)	JAN.	FEB.	MAR.	APR.	MAY	JUN.		
61	Starr Machine 1620 Middlebury Street Elkhart, IN 46514												
62	Strong Steel Attn: Mr. Earl Messmore 1401 Concord Elkhart, IN 46514	City Sewage	2084	Met. Est.	121 121	145 145	160 160	290 290	299 299	169 169	125 125		
63	Taylor Products Division Attn: H.Z. Bognar 1100 West Beardsley Elkhart, IN 46514	City City Well Water Sewage	1748 1749	Met. Met. Met. Est.	12161 12040 - 24201	9459 1448 - 10907	10018 27 - 10025	15804 - - 15804	16331 0 11270 27601	6587 410 10906 17903	6383 1172 11270 18825		
64	Teledyne Metal Forming Attn: L.E. BeMiller 1937 Sterling Avenue P.O. Box 757 Elkhart, IN 46514	City Sewage	2620	Met. Est.					32214 32214	31199 31199	30269 30269		
65	Tenneco Chemicals Attn: Mr. John Wise 1500 West Lusher Avenue Elkhart, IN 46514	City Sewage	6782	Met. (quart.) Est.					411 411	411 411	411 411		
66	Thermco Products Attn: Mr. John Tedstrom 1800 Fieldhouse Elkhart, IN 46514	City Sewage	78246	Met. Est.	0 0	0 0	0 0	0 0	0 0	0 0	0 0		

*METERED OR ESTIMATED

WATER SUPPLY AND WASTEWATER DISCHARGE DATA , (CONT.)

FILE NO.	NAME ADDRESS TELEPHONE NUMBER	WATER SUPPLY AND DISCHARGE										SLUG DIS-CHARGE	MODE OF DIS-CHARGE
		WATER TYPE	ACCT. NO.	MET. * OR EST.	FLOW (gpd; in 1979)								
					DEC. (78)	JAN.	FEB.	MAR.	APR.	MAY	JUN.		
67	Thompson Mfg. Company, Inc. Attn: Mr. Richard A. Thompson 318 Elm Street Elkhart, IN 46514	City Sewage	45592	Met. (quart.) Est.					173 173	173 173	173 173		
68	Truth Publishing Co. Attn: Mr. David L. Klahr 421 So. Second Street Elkhart, IN 46514	City City Sewage	3320 3330	Met. Met. Est.	8156 - 8156	10014 3088 13102	8682 3072 11754	8276 3233 11509	8552 8552	8614 8614	7804 7804		
69	Walter Piano Company, Inc. 700 W. Beardsley Avenue Elkhart, IN 46514												
70	Whitehall Laboratories Attn: Mr. Joe Breit 1919 Superior Street Elkhart, IN 46514	City Well Water Sewage	1190	Met. Met. Est.	86575 86575	93066 93066	91443 91443	85103 85103	87940 81906 169846	99122 91352 190474	155534 144863 300397		

"Operational Characteristics"



Attachment C

OPERATIONAL CHARACTERISTICS

FILE NO.	NAME ADDRESS TELEPHONE NUMBER	NO. OF DIS-CHARGE PIPES	CURRENT PRETREATMENT FACILITIES	PLANT DIAGRAM		I ^a OR O	RAW MATERIALS USED	
				SEWER LAYOUT	PROCESS SCHE-MATIC		NAME	AMOUNTS
1	AACOA Attn: Mr. Jerry Formsma 727 Randolph Street Elkhart, IN 46514	2	None	Yes	Yes	I	Sodium Hydroxide Alutone and Nitric Acid Sulfopthalic Acid Sulfuric Acid "Soak 613" Ammonia Epsom Salts Cobalt Sulfate Tartaric Acid Boric Acid Magnesium Sulfate Magnesium Oxide "AX 21"	
						O	Acetic Acid	
2	Adams and Westlake Company Attn: Mr. Russell O. Anderson 1025 N. Michigan Street Elkhart, IN 46514	20	-	Yes	No	I	Cadmium Chromium Copper and Compounds Cyanides Lead and Compounds Nickel and Compounds Zinc and Compounds	500 lbs/yr 200 lbs/yr 300 lbs/yr 600 lbs/yr 300 lbs/yr 450 lbs/yr 800 lbs/yr
						O	Toluene Trichloroethylene	1200 gal/yr 2000 gal/yr
3	Anco Products Incorporated Attn: Mr. Daniel Singer 2500 South 17th Street Elkhart, IN 46514		None	No	No	O	Trichloroethylene	4500 gal/yr

^aORGANIC OR INORGANIC

OPERATIONAL CHARACTERISTICS (CONTINUED)

FILE NO.	NAME ADDRESS TELEPHONE NUMBER	NO. OF DIS-CHARGE PIPES	CURRENT PRETREAT-MENT FACILITIES	PLANT DIAGRAM		RAW MATERIALS USED	
				SEWER LAYOUT	PROCESS SCHE-MATIC	I OR O	NAME AMOUNTS
4	Anderson Silver Plating Co. Attn: Mr. Mike Anderson 541 Industrial Parkway P.O. Box 961 Elkhart, IN 46514	1	None	Yes	No	I	Copper Potassium Cyanide 100 lbs/yr Potassium Cyanide 200 lbs/yr Silver Cyanide 400 oz Potassium Gold 10 oz Cyanide Nickel Chloride 15 gallons Nickel Sulfate 15 gallons
5	W.T. Armstrong Co., Inc. Attn: Mr. Al Singleton 1000 Industrial Parkway P.O. Box 787 Elkhart, Indiana 46514	1	Cyanide Reduction Acid and Alkali Neutrali- zation Metal Precipita- tion Filtering	Yes	Yes	I	Copper Cyanide 200 lbs/yr Cyanide 2000 lbs/yr Lead Solder 75 lbs/yr Nickel Sulfate 400 gal/yr Nickel Chloride 200 gal/yr Silver Cyanide 9.4 gal/yr Sulfuric Acid Nitric Acid Chlorine Metal-Brite Liquid Caustic Soda Beryllium 500 lbs/yr
						O	Chlorinated Ethanes 2700 gal/yr Trichloroethylene 1000 gal/yr
6	Atlas Chemical Milling Attn: Mr. Herman Graboyes 1627 W. Lusher Avenue Elkhart, IN 46514	-	None	No	Yes	I	Nitric Acid Hydrochloric Acid Ferric Chloride Methylene Chloride Phosphoric Acid Oakite 32 and Oakite 2327
						O	1,1,1 Trichloroethane 50 gal Trichloroethylene 115 gal Xylene base photo resist

^a ORGANIC OR INORGANIC

OPERATIONAL CHARACTERISTICS

FILE NO.	NAME ADDRESS TELEPHONE NUMBER	NO. OF DIS-CHARGE PIPES	CURRENT PRETREATMENT FACILITIES	PLANT DIAGRAM		RAW MATERIALS USED	
				SEWER LAYOUT	PROCESS SCHE-MATIC	I ^a OR O	NAME AMOUNTS
1	AACOA Attn: Mr. Jerry Formsma 727 Randolph Street Elkhart, IN 46514	2	None	Yes	Yes	I	Sodium Hydroxide Alutone and Nitric Acid Sulfothalic Acid Sulfuric Acid "Soak 613" Ammonia Epsom Salts Cobalt Sulfate Tartaric Acid Boric Acid Magnesium Sulfate Magnesium Oxide "AX 21"
						O	Acetic Acid
2	Adams and Westlake Company Attn: Mr. Russell O. Anderson 1025 N. Michigan Street Elkhart, IN 46514	20	-	Yes	No	I	Cadmium 500 lbs/yr Chromium 200 lbs/yr Copper and Compounds 300 lbs/yr Cyanides 600 lbs/yr Lead and Compounds 300 lbs/yr Nickel and Compounds 450 lbs/yr Zinc and Compounds 800 lbs/yr
						O	Toluene 1200 gal/yr Trichloroethylene 2000 gal/yr
3	Anco Products Incorporated Attn: Mr. Daniel Singer 2500 South 17th Street Elkhart, IN 46514		None	No	No	O	Trichloroethylene 4500 gal/yr

^aORGANIC OR INORGANIC

OPERATIONAL CHARACTERISTICS (CONTINUED)

FILE NO.	NAME ADDRESS TELEPHONE NUMBER	NO. OF DIS-CHARGE PIPES	CURRENT PRETREATMENT FACILITIES	PLANT DIAGRAM		RAW MATERIALS USED	
				SEWER LAYOUT	PROCESS SCHE-MATIC	I OR O	NAME AMOUNTS
4	Anderson Silver Plating Co. Attn: Mr. Mike Anderson 541 Industrial Parkway P.O. Box 961 Elkhart, IN 46514	1	None	Yes	No	I	Copper Potassium Cyanide 100 lbs/yr Potassium Cyanide 200 lbs/yr Silver Cyanide 400 oz Potassium Gold 10 oz Cyanide Nickel Chloride 15 gallons Nickel Sulfate 15 gallons
5	W.T. Armstrong Co., Inc. Attn: Mr. Al Singleton 1000 Industrial Parkway P.O. Box 787 Elkhart, Indiana 46514	1	Cyanide Reduction Acid and Alkali Neutralization Metal Precipitation Filtering	Yes	Yes	I	Copper Cyanide 200 lbs/yr Cyanide 2000 lbs/yr Lead Solder 75 lbs/yr Nickel Sulfate 400 gal/yr Nickel Chloride 200 gal/yr Silver Cyanide 9.4 gal/yr Sulfuric Acid Nitric Acid Chlorine Metal-Brite Liquid Caustic Soda Beryllium 500 lbs/yr
						O	Chlorinated Ethanes 2700 gal/yr Trichloroethylene 1000 gal/yr
6	Atlas Chemical Milling Attn: Mr. Herman Graboyes 1627 W. Lusher Avenue Elkhart, IN 46514	-	None	No	Yes	I	Nitric Acid Hydrochloric Acid Ferric Chloride Methylene Chloride Phosphoric Acid Oakite 32 and Oakite 2327
						O	1,1,1 Trichloroethane 60 gal Trichloroethylene 115 gal Xylene base photo resist

^a ORGANIC OR INORGANIC

OPERATIONAL CHARACTERISTICS (CONTINUED)

FILE NO.	NAME ADDRESS TELEPHONE NUMBER	NO. OF DIS-CHARGE PIPES	CURRENT PRETREATMENT FACILITIES	PLANT DIAGRAM		I ^a OR O	RAW MATERIALS USED	
				SEWER LAYOUT	PROCESS SCHE-MATIC		NAME	AMOUNTS
7	Atlas Steel Rule Die, Inc. Attn: Mr. S. Ray Miller, Jr. 2000 Middlebury Street Elkhart, IN 46514	-	None	No	No		None of the "Noxious 65" (Table 2.2)	
8	J.J. Babbitt Company, Inc. Attn: Mr. Eugene B. Reglein 1505 West Beardsley Elkhart, IN 46514	1		No	No			
9	Babcock & Wilcox Company Attn: Robert Schneider 935 Plum Street PO Box 1303 Elkhart, IN 46514	4	Acid Neutrali- zation	Yes	No	I	Diversey 909	104 gal
							Diversey 656	2400 lbs
							Diversey Everite	500 lbs
							Diversey DS-9-314	416 gal
							Diversiflos HZ 306	550 gal
							Bond-o-Lube	104 gal
							Uniclean	104 gal
							Watcon 1437	52 gal
							Watcon 125	52 gal
						O	#2 Fuel Oil	24,000 gal
							Xylene	572 gal

^aORGANIC OR INORGANIC

OPERATIONAL CHARACTERISTICS (CONTINUED)

FILE NO.	NAME ADDRESS TELEPHONE NUMBER	NO. OF DIS-CHARGE PIPES	CURRENT PRETREATMENT FACILITIES	PLANT DIAGRAM		I OR O	RAW MATERIALS USED	
				SEWER LAYOUT	PROCESS SCHE-MATIC		NAME	AMOUNTS
10	Vincent Bach Company Attn: Mr. Cliff Cartwright 500 Industrial Parkway Elkhart, IN 46514	2	None	Yes	No	I	ISOPREP 201	750 gal/yr
							Copper	500 lbs/yr
							Copper Sulfate	100 lbs/yr
							Sodium Cyanide	5000 lbs/yr
							Potassium Cyanide	400 lbs/yr
							Copper Cyanide	200 lbs/yr
							Nickel	1650 lbs/yr
							Nickel Sulphate	1100 lbs/yr
							Nickel Chloride	400 lbs/yr
							Silver	114 lbs/yr
							Silver Cyanide	12 lbs/yr
							Zinc Chloride	250 lbs/yr
						O	Trichloroethylene	235,000 lbs/yr
							Lacquer	
							Synthetic Baking Enamel	
							Organic Solvent	
							Proprietary Mixtures	
11	Barger Packaging Corp. Attn: Mr. Don Hoffman 1511 West Lusher Avenue PO Box 249 Elkhart, IN 46514	1		No	No			
12	E.K. Blessing Co., Inc. 1301 Beardsley Avenue Elkhart, Indiana 46514			No	No		None of the "Noxious 65" (Table 2.2)	

^aORGANIC OR INORGANIC

OPERATIONAL CHARACTERISTICS (CONTINUED)

FILE NO.	NAME ADDRESS TELEPHONE NUMBER	NO. OF DIS-CHARGE PIPES	CURRENT PRETREATMENT FACILITIES	PLANT DIAGRAM		I ^a OR O	RAW MATERIALS USED	
				SEWER LAYOUT	PROCESS SCHE-MATIC		NAME	AMOUNTS
13	CTS Corporation (Plastics Plant) Attn: Mr. Paul Wittman 905 North West Boulevard Elkhart, IN 46514	1	None	Yes	No		(SEE BELOW)	
14	CTS of Elkhart, Inc. (Main Plant) Attn: Mr. Paul Wittman 1142 W. Beardsley Avenue Elkhart, IN 46514	4	None	Yes	No	I	Cadmium	400 lbs/yr
							Chromium	300 lbs/yr
							Copper and Compounds	750 lbs/yr
							Copper Cyanide	500 lbs/yr
							Sodium Cyanide	9,200 lbs/yr
							Potassium Cyanide	10,400 lbs/yr
							Lead	200 lbs/yr
							Nickel	3,306 lbs/yr
							Nickel Chloride	1,645 gal/yr
							Nickel Sulfate	5,575 gal/yr
							Silver	1,139 lbs/yr
							Zinc	3,000 lbs/yr
						O	Toluene	250 gal/yr
							Trichloroethylene	252,948 lbs/yr
							Trichloroethane	21,377 gal/yr
15	Conrail Corporation Attn: Mr. John Dinehart Robert Young Yard Elkhart, IN 46514	1	Cooling water treatment	Yes	Yes	O	F O 446 Degreaser	Dearborn #508

^a ORGANIC OR INORGANIC

OPERATIONAL CHARACTERISTICS (CONTINUED)

FILE NO.	NAME ADDRESS TELEPHONE NUMBER	NO. OF DIS-CHARGE PIPES	CURRENT PRETREATMENT FACILITIES	PLANT DIAGRAM		I ^a OR O	RAW MATERIALS USED	
				SEWER LAYOUT	PROCESS SCHE-MATIC		NAME	AMOUNTS
16	Dometic Sales Corporation Attn: R.A. Neitzke 2320 Industrial Parkway PO Box 490 Elkhart, IN 46514		None	No	No	I	Ammonia Nitrogen	
17	Domore Office Furniture Attn: J.O. McNamee 2400 Sterling Avenue PO Box 1289 Elkhart, IN 46514		None	No	No		None of the "Noxious 65" (Table 2.2)	
18	Don's Printing Service Attn: Mr. Don Scharrer 1621 West Beardsley PO Box 1131 Elkhart, IN 46514	1		No	No			

^aORGANIC OR INORGANIC

OPERATIONAL CHARACTERISTICS (CONTINUED)

FILE NO.	NAME ADDRESS TELEPHONE NUMBER	NO. OF DIS-CHARGE PIPES	CURRENT PRETREATMENT FACILITIES	PLANT DIAGRAM		I ^a OR O	RAW MATERIALS USED	
				SEWER LAYOUT	PROCESS SCHE-MATIC		NAME	AMOUNTS
19	Durakool, Incorporated Attn: Mr. George Bucklen 1010 North Main Street P.O. Box 280 Elkhart, IN 46514	1		Yes	No	I	Arsenic Chromium and Compounds Cyanides Lead and Compounds Mercury and Compounds Nickel and Compounds Zinc and Compounds	
						O	Perchlorethylene Dimethyl Phthalate Naphtholene Chlorinated Ethanes Nitrobenzene	
20	Elixir Industries Travelers Division Attn: Mr. William McKinney 2040 Toledo Road Elkhart, IN 46514		None	No	Yes		None of the "Noxious 65" (Table 2.2)	
21	Elkhart Brass Mfg. Co., Inc. Attn: Mr. R.F. Holtz Sr. 1302 W. Beardsley Avenue PO Box 1127 Elkhart, IN 46514			No	No	O	Lubricating and Cutting Oils 1,1,1 Trichloroethane Dura-Seal Inc. - Casting Sealant Type C Toluol - Paint Thinner	1670 gal 1291 gal 385 gal 110 gal

^a ORGANIC OR INORGANIC

OPERATIONAL CHARACTERISTICS (CONTINUED)

FILE NO.	NAME ADDRESS TELEPHONE NUMBER	NO. OF DIS-CHARGE PIPES	CURRENT PRETREATMENT FACILITIES	PLANT DIAGRAM		RAW MATERIALS USED	
				SEWER LAYOUT	PROCESS SCHE-MATIC	I ^a OR O	NAME AMOUNTS
22	Elkhart Bridge and Iron Co. Attn: Mr. Martin E. Miller 929 North Michigan Elkhart, IN 46514	4	None	Yes	No		None of the "Noxious 65" (Table 2.2)
23	Elkhart Foam Products, Co. Attn: F.M. Lima 603 Industrial Parkway Elkhart, IN 46514	1	None	Yes	No	I O	Antimony and Compounds 13,800 lbs/yr Cyanides 3,000,000 lbs/yr Antimony Trioxide Silicone Toluene Diisocyanate (TDI) Polyol: Combination of Polyethylene Glycol & Polypropylene Glycol Diocetyl Phthalate (DOP) Freon #11 FR-2 Tris (Dichloropropyl) Phosphate Stannous Octoate Triethylene Diamine (DABCO) Polyvinyl Chloride (PVC) Methylene Chloride 504,000 lbs/yr ZEP AP 508
24	Elkhart Foundry and Machine Attn: Mr. Joseph Leaverton 318 South Elkhart Avenue PO Box 668 Elkhart, IN 46514			Yes	No		Chromium and Compounds 15,492 lbs/yr Copper and Compounds 8,496 lbs/yr
25	Elkhart General Hospital 600 East Boulevard Elkhart, IN 46514			No	No		

OPERATIONAL CHARACTERISTICS (CONTINUED)

FILE NO.	NAME ADDRESS TELEPHONE NUMBER	NO. OF DIS-CHARGE PIPES	CURRENT PRETREATMENT FACILITIES	PLANT DIAGRAM		I ^a OR O	RAW MATERIALS USED	
				SEWER LAYOUT	PROCESS SCHE-MATIC		NAME	AMOUNTS
26	Elkhart Products Corporation Attn: Mr. Robert H. Todd 1255 Oak Street PO Box 1008 Elkhart, IN 46514		Acid and Alkali Storage and Neutralization Integrated Copper Treatment Wash	Yes	No	I	Chromic Acid Copper & Compounds Lead and Compounds Sulfuric Acid Hydrogen Peroxide Caustic Soda Soda Ash Hydrazine	3 gal/yr 3,000 lbs/yr
27	Elkhart Rubber Works, Inc. Attn: Mr. Robert T. Duffy 1629 Oakland Avenue PO Box 987 Elkhart, IN 46514	3		Yes	Yes	I O	Lead Compounds Zinc Compounds 1,1,1 Trichloroethane Dichloroethylenes Toluene	800 lbs 40,000 lbs 200 gal 1 gal 250 gal
28	Elkhart Tool and Die, Inc. Attn: Mr. Brent Brown 2400 South 15th Street Elkhart, IN 46514	1	None	Yes	No		None of the "Noxious 65" (Table 2.2)	

^a ORGANIC OR INORGANIC

OPERATIONAL CHARACTERISTICS (CONTINUED)

FILE NO.	NAME ADDRESS TELEPHONE NUMBER	NO. OF DIS-CHARGE PIPES	CURRENT PRETREATMENT FACILITIES	PLANT DIAGRAM		I ^a OR O	RAW MATERIALS USED	
				SEWER LAYOUT	PROCESS SCHE-MATIC		NAME	AMOUNTS
29	Excel Corporation Attn: Mr. Christofer Dersch 1120 North Main Street Elkhart, IN 46514	2	None	No	No	I O	Nickel and Compounds Zinc and Compounds Chlorinated Ethanes Toluene	2,700 lbs/yr 13,000 lbs/yr 2,900 gal/yr 733 gal/yr
30	Federal Paper Board Co., Inc. Attn: Mr. Jake Weaver PO Box 1007 Elkhart, IN 46514			No	No			
31	Federal Press Company Attn: Ms. Regina L. Baker 500 State Street PO Box 400 Elkhart, IN 46514	1		No	No			

OPERATIONAL CHARACTERISTICS (CONTINUED)

FILE NO.	NAME ADDRESS TELEPHONE NUMBER	NO. OF DIS-CHARGE PIPES	CURRENT PRETREATMENT FACILITIES	PLANT DIAGRAM		I ^a OR O	RAW MATERIALS USED	
				SEWER LAYOUT	PROCESS SCHE-MATIC		NAME	AMOUNTS
32	Foamcraft, Incorporated Attn: J. Russell 900 Industrial Parkway Elkhart, IN 46514	-	None	No	No		None of the "Noxious 65" (Table 2.2)	
33	Franklin Press, Inc. Attn: Mr. Robert DeMeyer 400 West Crawford Street Elkhart, IN 46514		None	Yes	No		None of the "Noxious 65" (Table 2.2)	
34	Hermaseal Incorporated Attn: Mr. George Bucklen 1106 LaFayette Elkhart, IN 46514	1		No	No			

^aORGANIC OR INORGANIC

OPERATIONAL CHARACTERISTICS (CONTINUED)

FILE NO.	NAME ADDRESS TELEPHONE NUMBER	NO. OF DIS-CHARGE PIPES	CURRENT PRETREAT-MENT FACILITIES	PLANT DIAGRAM		I ^a OR O	RAW MATERIALS USED	
				SEWER LAYOUT	PROCESS SCHE-MATIC		NAME	AMOUNTS
38	Indiana Plastics, Inc Attn: Mr. John Krus 2221 Industrial Parkway Elkhart, IN 46514			No	No			
39	Instant Copy of Indiana Attn: Mr. Frank Lorentz 201 West Marion Street Elkhart, IN 46514			No	No	I	Ferriscyanide Bichromates Sulphuric Acid Potassium Phosphate Potassium Hydroxide Sodium Sulphate	
40	J & K Oil Company Inc. Attn: Mr. Richard Brotherson 901 Lafayette Street Elkhart, IN 46514		None	No	No		None of the "Noxious 65" (Table 2.2)	

^a ORGANIC OR INORGANIC

OPERATIONAL CHARACTERISTICS (CONTINUED)

FILE NO.	NAME ADDRESS TELEPHONE NUMBER	NO. OF DIS-CHARGE PIPES	CURRENT PRETREATMENT FACILITIES	PLANT DIAGRAM		a I OR O	RAW MATERIALS USED	
				SEWER LAYOUT	PROCESS SCHE-MATIC		NAME	AMOUNTS
41	Jessen Manufacturing Company 1409 W. Beardsley Elkhart, IN 46514			No	No			
42	Ken's Quality Print Shop 116 Harrison Street Elkhart, IN 46514			No	No		Chlorinated Hydrocarbon	10 gal/yr
43	Kent Company Attn: R.A. Neitzke 2310 Industrial Parkway Elkhart, IN 46514			No	No			

^a ORGANIC OR INORGANIC

OPERATIONAL CHARACTERISTICS (CONTINUED)

FILE NO.	NAME ADDRESS TELEPHONE NUMBER	NO. OF DIS-CHARGE PIPES	CURRENT PRETREATMENT FACILITIES	PLANT DIAGRAM		RAW MATERIALS USED	
				SEWER LAYOUT	PROCESS SCHE-MATIC	I ^a OR O	NAME AMOUNTS
44	Kiefer and Sons, Inc. Attn: Mr. Ray Kiefer 1613 Cassopolis Street Elkhart, IN 46514	1		No	No	I	Chromium and Compounds 300 lbs/yr Copper and Compounds 100 lbs/yr Copper Cyanide 100 lbs/yr Nickel 720 lbs/yr
						O	Trichloroethylene 1,000 lbs/yr
45	L & J Press Corporation Attn: R.D. Mathias 1641 Sterline Avenue Elkhart, IN 46514	1	None	No	No	O	Polyurethane Paint 20-25 gal Polane Paint Reducer 55 gal Lacquer Thinner 100 gal Lubricating Oils 110 gal
46	Labour Pump Attn: Mr. William E. Barrett 1607 Sterling PO Box 1187 Elkhart, IN 46514	3	None	Yes	Yes	I	Nitric Acid 70 lbs/yr Sodium Hydroxide 10 lbs/yr Ammonium Hydroxide 20 lbs/yr Asbestos 100 lbs/yr Antimony Chromium and Compounds 46 lbs/yr Copper and Compounds 171 lbs/yr Cyanide 5 gms/yr Lead and Compounds 2,000 lbs/yr Nickel 4,060 lbs/yr Hydrochloric Acid 100 lbs/yr Sulfuric Acid 100 lbs/yr
						O	Methyl Chloroform 12 l/yr Nitrophenols 2 gms/yr Acetic Acid 20 lbs/yr

^a ORGANIC OR INORGANIC

OPERATIONAL CHARACTERISTICS (CONTINUED)

FILE NO.	NAME ADDRESS TELEPHONE NUMBER	NO. OF DIS-CHARGE PIPES	CURRENT PRETREATMENT FACILITIES	PLANT DIAGRAM		a I OR O	RAW MATERIALS USED	
				SEWER LAYOUT	PROCESS SCHE-MATIC		NAME	AMOUNTS
47	Madden Corporation Attn: Mr. James B. Madden 1317 Princeton Boulevard Elkhart, IN 46514		None	No	No		None of the "Noxious 65" (Table 2.2)	
48	McDowell Enterprises, Inc. Attn: Mr. William McDowell 2010 Superior Street PO Box 391 Elkhart, IN 46514	1	None	No	Yes	I	Udylite (OMI) Oxyprep 298 Muratic Acid Sodium Cyanide Copper Slugs Copper Cyanide Sodium Cyanide Sulphuric Acid Copper Sulfate M&T Products Nickel Chips Nickel Sulfate Nickel Chloride Boric Acid U.C.R. Inc. Products Ashland Econochrome 300 Chromic Acid Zinc Cyanide Cadmium Oxide	
						O	Trichlorethelyne	
49	Miles Laboratories, Inc. Attn: Mr. Elmer Hartgerink 1127 Myrtle Street Elkhart, IN 46514	1	Acid & Alkali Neutraliza-tion	Yes	Yes	I	Cupric Sulfate Silver Nitrate Zinc Sulfate Muriatic Acid	8,240 kg 3,637 gm 16,919 kg
						O	Benzene Benzidine Chloroform Toluene Nickel Acetylacetonate (Dihydrate) Citric Acid	3,065 liters 1,650 grams 6,659 liters 461 liters 2,230 gm

^a ORGANIC OR INORGANIC

OPERATIONAL CHARACTERISTICS (CONTINUED)

FILE NO.	NAME ADDRESS TELEPHONE NUMBER	NO. OF DIS-CHARGE PIPES	CURRENT PRETREATMENT FACILITIES	PLANT DIAGRAM		RAW MATERIALS USED	
				SEWER LAYOUT	PROCESS SCHE-MATIC	I ^a OR O	NAME AMOUNTS
50	Modern Printers & Duplicators Attn: Mr. Robert L. Fruchey 1400 Princeton Elkhart, IN 46514			No	No	I	Photographic Developer
51	NIBCO Incorporated Attn: Mr. Walt Dintaman 500 Simpson Street Elkhart, IN 46514	3	Chrome Plating Solution Removal	Yes	No	I	Beryllium Copper 1,000 lbs/yr Unichrome CR-110 200 lbs/yr Copper & Compounds 2,500 tons/yr Lead Alloys 7,600 lbs/yr Silver Solder 340 lbs/yr Nitric Acid Sulfuric Acid Caustic Soda Muriatic Acid Phosphoric Acid Lead, Bismuth and Tin Alloys Ammonium Persulfate Caustic Soda 0 Trichloroethylene 100,000 lbs/yr Lacquer Thinner 200 gal/yr No. 2 Fuel Oil Oleum Hydraulic and Lubricating Oils Ethylene Glycol Melt Out Oil Acetic Acid
52	Northside Tool and Engineer Attn: 1731 Cassopolis Street Elkhart, IN 46514			No	No		

^a ORGANIC OR INORGANIC

OPERATIONAL CHARACTERISTICS (CONTINUED)

FILE NO.	NAME ADDRESS TELEPHONE NUMBER	NO. OF DIS-CHARGE PIPES	CURRENT PRETREATMENT FACILITIES	PLANT DIAGRAM		1 ^a OR 0	RAW MATERIALS USED	
				SEWER LAYOUT	PROCESS SCHE-MATIC		NAME	AMOUNTS
53	Philips Industries Dexter Axle/Roof Group 2030 South Main Street PO Box 250 Elkhart, IN 46514			No	No			
54	Pulp Products Corporation Attn: Mr. Phillip Eddy 800-C Industrial Parkway PO Box 476 Elkhart, IN 46514		None	No	No		None of the "Noxious 65" (Table 2.2)	
55	Routson Brass Foundry, Inc. Attn: Mr. Robert Theirback 2652 South Main Street Elkhart, IN 46514	1	None	No	No		None of the "Noxious 65" (Table 2.2)	

^aORGANIC OR INORGANIC

OPERATIONAL CHARACTERISTICS (CONTINUED)

FILE NO.	NAME ADDRESS TELEPHONE NUMBER	NO. OF DIS-CHARGE PIPES	CURRENT PRETREATMENT FACILITIES	PLANT DIAGRAM		I ^a OR O	RAW MATERIALS USED	
				SEWER LAYOUT	PROCESS SCHE-MATIC		NAME	AMOUNTS
56	Selmer Company Attn: Mr. Cliff Cartwright PO Box 310 1119-1120 North Main Street Elkhart, IN 46514	2	None	Yes	No	I	Cyanides	100 lbs/yr
							Isoprep 201	270 gal/yr
							Hydrogen Peroxide	275 lbs/yr
							Sulfuric Acid	45 gal/yr
							Oakite 31	165 gal/yr
							Soda Ash	800 lbs/yr
							Electro Cold Stripper	25 gal/yr
							M.E.K.	100 gal/yr
							M.I.B.K.	100 gal/yr
							Trisodium Phosphate	100 lbs/yr
						O	Trichloroethylene	22,000 lbs/yr
57	Selmers Attn: Mr. Cliff Cartwright 2100 Industrial Parkway Elkhart, IN 46514	1	None	No	No		None of the "Noxious 65" (Table 2.2)	
58	Selmers Attn: Mr. Cliff Cartwright 2415 Industrial Parkway Elkhart, IN 46514	1	None	No	No		None of the "Noxious 65" (Table 2.2)	

^aORGANIC OR INORGANIC

OPERATIONAL CHARACTERISTICS (CONTINUED)

FILE NO.	NAME ADDRESS TELEPHONE NUMBER	NO. OF DIS-CHARGE PIPES	CURRENT PRETREATMENT FACILITIES	PLANT DIAGRAM		RAW MATERIALS USED	
				SEWER LAYOUT	PROCESS SCHE-MATIC	I OR O	NAME AMOUNTS
59	South Side Plating Works Inc. Attn: Mr. Robert McDowell 2306 South Main Street Elkhart, IN 46514	1	Still Rinse Tanks	Yes	No	I	Chromium and Compounds 1,200 lbs/yr Cooper and Compounds 30 lbs/yr Cyanides 500 lbs/yr Lead and Compounds 20 lbs/yr Nickel and Compounds 50 lbs/yr Zinc and Compounds 30 lbs/yr Muritic Acid Nitric Acid Sulfuric Acid Boric Acid "Lusteron" Products Haviland Chromater Cleaning Agents Cadnium and Compounds 20 lbs/yr
						O	Trichloroethylene 1,980 lbs/yr
60	Standard Tool and Machine Inc Attn: Mr. Merritt B. Havens 1313 West Beardsley Avenue Elkhart, IN 46514			No	No		
61	Starr Machine 1620 Middlebury Street Elkhart, IN 46514			No	No	I O	Renco Amasol Naptha Cutting, Hydraulic and Lubricating Oils

^a ORGANIC OR INORGANIC

OPERATIONAL CHARACTERISTICS (CONTINUED)

FILE NO.	NAME ADDRESS TELEPHONE NUMBER	NO. OF DIS-CHARGE PIPES	CURRENT PRETREATMENT FACILITIES	PLANT DIAGRAM		RAW MATERIALS USED	
				SEWER LAYOUT	PROCESS SCHE-MATIC	^a I OR O	NAME AMOUNTS
62	Strong Steel Attn: Mr. Earl Messmore 1401 Concord Elkhart, IN 46514			No	No		
63	Taylor Products Division Attn: H.Z. Bogner 1100 West Beardsley Elkhart, IN 46514	1	Percolation Retention Pond	Yes	No	I O	Copper Tubing Chlorinated Ethanes 6,240 gal/yr Drawing Oil
64	Teledyne Metal Forming Attn: L.E. BeMiller 1937 Sterling Avenue PO Box 757 Elkhart, IN 46514			No	No		

^aORGANIC OR INORGANIC

OPERATIONAL CHARACTERISTICS (CONTINUED)

FILE NO.	NAME ADDRESS TELEPHONE NUMBER	NO. OF DIS-CHARGE PIPES	CURRENT PRETREATMENT FACILITIES	PLANT DIAGRAM		a I OR O	RAW MATERIALS USED	
				SEWER LAYOUT	PROCESS SCHE-MATIC		NAME	AMOUNTS
35	ILC Products Company, Inc. Attn: M. Mynsberge 1819 South 14th Street PO Box 338 Elkhart, IN 46514		Oil Separation and Chemical Pretreatment	No	Yes	I O	Chromium Toluene	1,895 gal/yr 1,200 gal/yr
36	I.M.C. Products Company Attn: Mr. Jack Cook 2115 S. 17th Street PO Box 547 Elkhart, IN 46514			No	No			
37	Ideal Plating Corporation Attn: Mr. William Thompson 1913 South 14th Street PO Box 74 Elkhart, IN 46514	1		Yes	No	I	Chromium and Compounds Cyanides Zinc and Compounds	10,400 lbs/yr 20,800 lbs/yr 156,000 lbs/yr

^aORGANIC OR INORGANIC

OPERATIONAL CHARACTERISTICS (CONTINUED)

FILE NO.	NAME ADDRESS TELEPHONE NUMBER	NO. OF DIS-CHARGE PIPES	CURRENT PRETREATMENT FACILITIES	PLANT DIAGRAM		a 1 OR 0	RAW MATERIALS USED	
				SEWER LAYOUT	PROCESS SCHE-MATIC		NAME	AMOUNTS
65	Tenneco Chemicals Attn: Mr. John Wise 1500 West Lusher Avenue Elkhart, IN 46514			No	No			
66	Thermco Products Attn: Mr. John Tedstrom 1800 Fieldhouse Elkhart, IN 46514			No	No			
67	Thompson Mfg. Company Inc. Attn: Mr. Richard A. Thompson 318 Elm Street Elkhart, IN 46514			No	No			

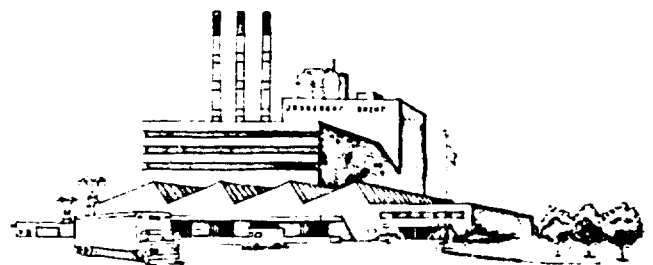
^a ORGANIC OR INORGANIC

OPERATIONAL CHARACTERISTICS (CONTINUED)

FILE NO.	NAME ADDRESS TELEPHONE NUMBER	NO. OF DIS-CHARGE PIPES	CURRENT PRETREATMENT FACILITIES	PLANT DIAGRAM		RAW MATERIALS USED	
				SEWER LAYOUT	PROCESS SCHE-MATIC	I ^a OR O	NAME AMOUNTS
68	Truth Publishing Co. Attn: Mr. David L. Klahr 421 So. Second Street Elkhart, IN 46514			No	No		
69	Whitehall Laboratories Attn: Mr. Joe Breit 1919 Superior Street Elkhart, IN 46514	2	None	Yes	No	0	Phenylmercuric Nitrate Phenols
70	Walter Piano Company, Inc. 700 W. Beardsley Avenue Elkhart, IN 46514	None	None	No	No		None of the "Noxious 65" (Table 2.2)

^aORGANIC OR INORGANIC

**"Classification and
Pretreatment Standards"**



Attachment D

Note:

The definitions of "wet", "dry", "major", and "minor" as used for this set of charts are provided in Section 6.3.4.



CLASSIFICATION AND PRETREATMENT STANDARDS

CLASSIFICATION							PRETREATMENT STANDARDS		
FILE NO.	NAME ADDRESS TELEPHONE NUMBER	STANDARD INDUSTRIAL CLASSIFICATION		WET OR DRY	MAJOR OR MINOR	CATEGORY	CATEGORICAL	1) FEDERAL 2) STATE OR 3) LOCAL	PROHIBITED DISCHARGE
		DIV.	CODE NO.						
1	AACOA Attn: Mr. Jerry Formsma 727 Randolph Street Elkhart, IN 46514	D	3471			(19) Electro-plating	40 CFR. 413		
2	Adams and Westlake Company Attn: Mr. Russell O. Anderson 1025 N. Michigan Street Elkhart, IN 46514	D D D	3442 3643 3674	Wet	Major	(18) Machinery and Machinery Products Mfg.	PROHIBITED DISCHARGE STANDARDS (SECTION 2.2.1)		
3	Anco Products, Incorporated Attn: Mr. Daniel Singer 2500 South 17th Street Elkhart, IN 46514	D	3433	Wet		(18) Machinery and Machinery Products Mfg.	ELKHART SEWER USE ORDINANCE REQUIREMENTS (SECTION 2.3 AND APPENDIX B)		
4	Anderson Silver Plating Co. Attn: Mr. Mike Anderson 541 Industrial Parkway P.O. Box 961 Elkhart, IN 46514	D	3471	Wet	Major	(19) Electro-plating	RESPECTIVE CATEGORICAL PRETREATMENT STANDARDS ONCE PROMULGATED (SECTION 2.2.2)		
5	W.T. Armstrong Co., Inc. Attn: Mr. Al Singleton 1000 Industrial Parkway P.O. Box 787 Elkhart, Indiana 46514	D	3931	Wet	Major	(18) Machinery and Machinery Products Mfg.			
6	Atlas Chemical Milling Attn: Mr. Herman Graboyes 1627 W. Lusher Avenue Elkhart, IN 46514	D	3544	Wet		(18) Machinery and Machinery Products Mfg.			

CLASSIFICATION AND PRETREATMENT STANDARDS (CONTINUED)

CLASSIFICATION						PRETREATMENT STANDARDS		
FILE NO.	NAME ADDRESS TELEPHONE NUMBER	STANDARD INDUSTRIAL CLASSIFICATION		WET OR DRY	MAJOR OR MINOR	CATEGORY	CATEGORICAL	1) FEDERAL 2) STATE OR 3) LOCAL
		DIV.	CODE NO.					PROHIBITED DISCHARGE
7	Atlas Steel Rule Die, Inc. Attn: Mr. S. Ray Miller, Jr. 2000 Middlebury Street Elkhart, Indiana 46514	D D	3544 3542	Wet		(18) Machinery and Machinery Products Mfg.		
8	J.J. Babbitt Company, Inc. Attn: Mr. Eugene B. Reglein 1505 West Beardsley Elkhart, IN 46514	D	3931	Dry		(18) Machinery and Machinery Products Mfg.	PROHIBITED DISCHARGE STANDARDS (SECTION 2.2.1)	
9	Babcock & Wilcox Company Attn: Robert Schneider 935 Plum Street PO Box 1303 Elkhart, IN 46514	D	3494	Wet	Major	(18) Machinery and Machinery Products Mfg.	ELKHART SEWER USE ORDINANCE REQUIREMENTS (SECTION 2.3 AND APPENDIX B)	
10	Vincent Bach Company Attn: Mr. Cliff Cartwright 500 Industrial Parkway Elkhart, IN 46514	D	3931	Wet	Major	(18) Machinery and Machinery Products Mfg.	RESPECTIVE CATEGORICAL PRETREATMENT STANDARDS ONCE PROMULGATED (SECTION 2.2.2)	
11	Barger Packaging Corporation Attn: Mr. Don Hoffman 1511 West Lusher Avenue P.O. Box 249 Elkhart, IN 46514	D D D	2653 2651 3079	Wet		(15) Pulp, Paperboard and Converted Paper Production		
12	E.K. Blessing Co., Inc. 1301 Beardsley Avenue Elkhart, Indiana 46514	D	3931			Machinery and Machinery Products Manufacturing		



CLASSIFICATION AND PRETREATMENT STANDARDS (CONTINUED)

CLASSIFICATION							PRETREATMENT STANDARDS		
FILE NO.	NAME ADDRESS TELEPHONE NUMBER	STANDARD INDUSTRIAL CLASSIFICATION		WET OR DRY	MAJOR OR MINOR	CATEGORY	CATEGORICAL	1) FEDERAL 2) STATE OR 3) LOCAL	PROHIBITED DISCHARGE
		DIV.	CODE NO.						
13	CTS Corporation (Plastics Plant) Attn: Mr. Paul Wittman 905 North West Boulevard Elkhart, IN 46514	D D D D D	3676 3674 3613 3651 3679	Wet	Major	(18) Machinery and Machinery Products Mfg.			
14	CTS of Elkhart, Inc. (Main Plant) Attn: Mr. Paul Wittman 1142 W. Beardsley Avenue Elkhart, IN 46514	D D D D D	3676 3613 3613 282- 3676	Wet	Major	(18) Machinery and Machinery Products Mfg.	 PROHIBITED DISCHARGE STANDARDS (SECTION 2.2.1)		
15	Conrail Corporation Attn: Mr. John Dinehart Robert Young Yard Elkhart, IN 46514	D	40-	Wet	Major	-----			
16	Dometic Sales Corporation Attn: R.A. Neitzke 2320 Industrial Parkway P.O. Box 490 Elkhart, IN 46514	D	3632	Wet		(18) Machinery and Machinery Products Mfg.			
17	Domore Office Furniture Attn: J.O. McNamee 2400 Sterling Avenue P.O. Box 1289 Elkhart, IN 46514	D	252-	Wet		(18) Machinery and Machinery Products Mfg.	 RESPECTIVE CATEGORICAL PRETREATMENT STANDARDS ONCE PROMULGATED (SECTION 2.2.2)		
18	Don's Quality Print Shop Attn: Mr. Don Scharer 1621 West Beardsley P.O. Box 1131 Elkhart, IN 46514	D	275-	Dry		(11) Paint and Ink Formulation and Printing			

CLASSIFICATION AND PRETREATMENT STANDARDS (CONTINUED)

CLASSIFICATION							PRETREATMENT STANDARDS		
FILE NO.	NAME ADDRESS TELEPHONE NUMBER	STANDARD INDUSTRIAL CLASSIFICATION		WET OR DRY	MAJOR OR MINOR	CATEGORY	CATEGORICAL	1) FEDERAL 2) STATE OR 3) LOCAL	PROHIBITED DISCHARGE
		DIV.	CODE NO.						
19	Durakool, Incorporated Attn: Mr. George Bucklen 1010 North Main Street P.O. Box 280 Elkhart, IN 46514	D	3643	Wet		(18) Machinery and Machinery Products Mfg.			
		D	3643						
		D	3832						
		D	3293						
20	Elixir Industries Travelers Division Attn: Mr. William McKinney 2040 Toledo Road Elkhart, IN 46514	D	3293	Wet		(18) Machinery and Machinery Products Mfg.			
		D	3631						
21	Elkhart Brass Mfg. Co., Inc. Attn: Mr. R.F. Holtz Sr. 1302 W. Beardsley Avenue P.O. Box 1127 Elkhart, IN 46514	D	3829	---		(9) Non-ferrous Metal Mfg.			
		D	3999						
		D	3569						
		D	3432						
22	Elkhart Bridge and Iron Co. Attn: Mr. Martin E. Miller, Jr. 929 North Michigan Elkhart, IN 46514	D	3441	Wet		(4) Iron and Steel Mfg.			
		D	3465						
		D	3714						
23	Elkhart Foam Products, Co. Attn: F.M. Lima 603 Industrial Parkway Elkhart, IN 46514	D	2821	Wet		(14) Plastic, Synthetic, Resin, and Manmade Fiber Manufacturing			
24	Elkhart Foundry and Machine Attn: Mr. Joseph Leaverton 318 South Elkhart Avenue P.O. Box 668 Elkhart, IN 46524	D	3321	Wet		(4) Iron and Steel Mfg.			

CLASSIFICATION AND PRETREATMENT STANDARDS (CONTINUED)

CLASSIFICATION							PRETREATMENT STANDARDS		
FILE NO.	NAME ADDRESS TELEPHONE NUMBER	STANDARD INDUSTRIAL CLASSIFICATION		WET OR DRY	MAJOR OR MINOR	CATEGORY	CATEGORICAL	1) FEDERAL 2) STATE OR 3) LOCAL	PROHIBITED DISCHARGE
		DIV.	CODE NO.						
25	Elkhart General Hospital 600 East Boulevard Elkhart, IN 46514	I	8062			-----			
26	Elkhart Products Corporation Attn: Mr. Robert H. Todd 1255 Oak Street P.O. Box 1008 Elkhart, IN 46514	D D	3351 343	Wet	Major	(18) Machinery and Machinery Products Mfg.	 PROHIBITED DISCHARGE STANDARDS (SECTION 2.2.1)		
27	Elkhart Rubber Works, Inc. Attn: Mr. Robert T. Duffy 1629 Oakland Avenue P.O. Box 987 Elkhart, IN 46514	D	30--	Wet	Major	(16) Rubber Processing			
28	Elkhart Tool and Die, Inc. Attn: Mr. Brent Brown 2400 South 15th Street Elkhart, IN 46514	D	3714	Wet		(18) Machinery and Machinery Products Mfg.			
29	Excel Corporation Attn: Mr. Christofer Dersch 1120 North Main Street Elkhart, IN 46514	D D	3714 3442	Wet	Major	(18) Machinery and Machinery Products Mfg.	 RESPECTIVE CATEGORICAL PRETREATMENT STANDARDS ONCE PROMULGATED (SECTION 2.2.2)		
30	Federal Paper Board Co., Inc. Attn: Mr. Jake Weaver P.O. Box 1007 Elkhart, IN 46514	D	2651	Wet	Major	(15) Pulp, Paperboard and Con- verted Paper Pro- duction			

CLASSIFICATION AND PRETREATMENT STANDARDS (CONTINUED)



CLASSIFICATION							PRETREATMENT STANDARDS		
FILE NO.	NAME ADDRESS TELEPHONE NUMBER	STANDARD INDUSTRIAL CLASSIFICATION		WET OR DRY	MAJOR OR MINOR	CATEGORY	CATEGORICAL	1) FEDERAL 2) STATE OR 3) LOCAL	PROHIBITED DISCHARGE
		DIV.	CODE NO.						
31	Federal Press Company Attn: Ms. Regina L. Baker 500 State Street P.O. Box 400 Elkhart, IN 46514	D	3542	Dry		(18) Machinery and Machinery Products Mfg.			
32	Foamcraft, Incorporated Attn: J. Russell 900 Industrial Parkway Elkhart, IN 46514	D D	2821 2392 or 3069			(14) Plastic Synthetic Resin and Manmade Fiber Mfg.			
33	Franklin Press, Inc. Attn: Mr. Robert DeMeyer 400 West Crawford Street Elkhart, IN 46514	D	27--	Wet		(11) Paint and Ink Formulation and Printing			
34	Hermaseal Incorporated Attn: Mr. George Bucklen 1106 LaFayette Elkhart, IN 46514	D D	2442 3713	Wet	Major	(18) Machinery and Machinery Products Mfg.			
35	ILC Products Company, Inc. Attn: M. Mynsberge 1819 South 14th Street P.O. Box 338 Elkhart, IN 46514	D D	2442 3713	Wet		(18) Machinery and Machinery Products Mfg.			
36	IMC Products Company Attn: Mr. Jack Cook 2115 S. 17th Street PO Box 547 Elkhart, IN 46514	D	3471	Wet		(19) Electroplating			

PROHIBITED DISCHARGE
STANDARDS (SECTION 2.2.1)

ELKHART SEWER USE
ORDINANCE REQUIREMENTS
(SECTION 2.3 AND APPENDIX B)

RESPECTIVE CATEGORICAL
PRETREATMENT STANDARDS
ONCE PROMULGATED
(SECTION 2.2.2)

CLASSIFICATION AND PRETREATMENT STANDARDS (CONTINUED)

CLASSIFICATION						PRETREATMENT STANDARDS		
FILE NO.	NAME ADDRESS TELEPHONE NUMBER	STANDARD INDUSTRIAL CLASSIFICATION		WET OR DRY	MAJOR OR MINOR	CATEGORY	CATEGORICAL	1) FEDERAL 2) STATE OR 3) LOCAL
		DIV.	CODE NO.					
37	Ideal Plating Corporation Attn: Mr. William Thompson 1913 South 14th Street P.O. Box 74 Elkhart, IN 46514	D	3471	Wet	Major	(19) Electroplating		
38	Indiana Plastics, Inc. Attn: Mr. John Krus 2221 Industrial Parkway Elkhart, IN 46514	D	3079	Dry		(14) Plastics Synthetic Resin and Manmade Fiber Mfg.	 PROHIBITED DISCHARGE STANDARDS (SECTION 2.2.1)	
39	Instant Copy of Indiana Attn: Mr. Frank Lorentz 201 West Marion Street Elkhart, IN 46514	D	275-	Dry		(11) Paint and Ink Formu- lation and Printing		
40	J & K Oil Company, Inc. Attn: Mr. Richard Brotherson 901 Lafayette Street Elkhart, IN 46514	D	291-	Dry		(5) Petroleum Refining		
41	Jessen Manufacturing Company 1409 W. Beardsley Elkhart, IN 46514	D	34--			(18) Machinery and Machinery Products Mfg.		
42	Ken's Printing 116 Harrison Street Elkhart, IN 46514	D	275-			(11) Paint and Ink Formu- lation and Printing	 RESPECTIVE CATEGORICAL PRETREATMENT STANDARDS ONCE PROMULGATED (SECTION 2.2.2)	

CLASSIFICATION AND PRETREATMENT STANDARDS (CONTINUED)

CLASSIFICATION							PRETREATMENT STANDARDS		
FILE NO.	NAME ADDRESS TELEPHONE NUMBER	STANDARD INDUSTRIAL CLASSIFICATION		WET OR DRY	MAJOR OR MINOR	CATEGORY	CATEGORICAL	1) FEDERAL	PROHIBITED DISCHARGE
		DIV.	CODE NO.					2) STATE OR 3) LOCAL	
43	Kent Company Attn: R.A. Neitzke 2310 Industrial Parkway Elkhart, IN 46514	D	3632	Dry		(18) Machinery and Machinery Products Mfg.			
44	Kiefer and Sons, Inc. Attn: Mr. Ray Kiefer 1613 Cassopolis Street Elkhart, IN 46514	D	3471	Wet	Major	(19) Electro-plating			
45	L & J Press Corporation Attn: R.D. Mathias 1641 Sterling Avenue Elkhart, IN 46514	D	3542	Dry		(18) Machinery and Machinery Products Mfg.			
46	Labour Pump Attn: Mr. William E. Barret 1607 Sterling PO Box 1187 Elkhart, IN 46514	D	3561			(18) Machinery and Machinery Products Mfg.			
47	Madden Corporation Attn: Mr. James B. Madden 1317 Princeton Boulevard Elkhart, IN 46514	D D D D	3586 3829 3824 3443	Dry		(18) Machinery and Machinery Products Mfg.			
48	McDowell Enterprises, Inc. Attn: Mr. William McDowell 2010 Superior Street P.O. Box 391 Elkhart, IN 46514	D	3471	Wet		(19) Electro-plating			

</

CLASSIFICATION AND PRETREATMENT STANDARDS (CONTINUED)





CLASSIFICATION							PRETREATMENT STANDARDS		
FILE NO.	NAME ADDRESS TELEPHONE NUMBER	STANDARD INDUSTRIAL CLASSIFICATION		WET OR DRY	MAJOR OR MINOR	CATEGORY	CATEGORICAL	1) FEDERAL 2) STATE OR 3) LOCAL	PROHIBITED DISCHARGE
		DIV.	CODE NO.						
49	Miles Laboratories, Inc. Attn: Mr. Elmer Hartgerink 1127 Myrtle Street Elkhart, IN 46514	D D D D	2834 384- 2841 2834	Wet	Major	(17) Miscellaneous Chemicals			
50	Modern Printers & Duplicators Attn: Mr. Robert L. Fruchey 1400 Princeton Elkhart, IN 46514	D	275-	Dry		(11) Paint and Ink Formulation and Printing			
51	NIBCO Incorporated Attn: Mr. Walt Dintaman 500 Simpson Street Elkhart, IN 46514	D	343-	Wet	Major	(18) Machinery and Machinery Products Mfg.			
52	North Side Tool & Engineer Attn: 1731 Cassopolis Street Elkhart, IN 46514	D D	2653 3079	Dry		(15) Pulp Paperboard and Con- verted Paper Pro- duction			
53	Philips Industries Dexter Axle/Roof Group 2030 South Main Street PO Box 250 Elkhart, IN 46514 Attn: Mr. William Kay	D	3714	Dry		(18) Machinery and Machinery Products Mfg.			
54	Pulp Products Corporation Attn: Mr. Phillip Eddy 800-C Industrial Parkway P.O. Box 476 Elkhart, IN 46514	D D	2653 3079	Dry		(15) Pulp Paperboard and Con- verted Paper Pro- duction			

PROHIBITED DISCHARGE
STANDARDS (SECTION 2.2.1)


ELKHART SEWER USE
ORDINANCE REQUIREMENTS
(SECTION 2.3 AND APPENDIX B)

RESPECTIVE CATEGORICAL
PRETREATMENT STANDARDS
ONCE PROMULGATED
(SECTION 2.2.2)

CLASSIFICATION AND PRETREATMENT STANDARDS (CONTINUED)

CLASSIFICATION						PRETREATMENT STANDARDS		
FILE NO.	NAME ADDRESS TELEPHONE NUMBER	STANDARD INDUSTRIAL CLASSIFICATION		WET OR DRY	MAJOR OR MINOR	CATEGORY	CATEGORICAL	1) FEDERAL 2) STATE OR 3) LOCAL
		DIV.	CODE NO.					PROHIBITED DISCHARGE
55	Routson Brass Foundry, Inc. Attn: Mr. Robert Theirback 2652 South Main Street Elkhart, IN 46514	D	3931	Dry		(9) Non-ferrous Metal Mfg.		
56	Selmer Company Attn: Mr. Cliff Cartwright P.O. Box 310 1119-1120 North Main Street Elkhart, IN 46514	D	3931	Wet		(18) Machinery and Machinery Products Mfg.	 PROHIBITED DISCHARGE STANDARDS (SECTION 2.2.1)  ELKHART SEWER USE ORDINANCE REQUIREMENTS (SECTION 2.3 AND APPENDIX B)  RESPECTIVE CATEGORICAL PRETREATMENT STANDARDS ONCE PROMULGATED (SECTION 2.2.2) 	
57	Selmers Attn: Mr. Cliff Cartwright 2100 Industrial Parkway Elkhart, IN 46514	D	3931	Dry	Minor	(18) Machinery and Machinery Products Mfg.		
58	Selmers Attn: Mr. Cliff Cartwright 2415 Industrial Parkway Elkhart, IN 46514	D	3931	Dry	Minor	(18) Machinery and Machinery Products Mfg.		
59	South Side Plating Works, Inc Attn: Mr. Robert McDowell 2306 South Main Street Elkhart, IN 46514	D	3471	Wet		(19) Electro-plating		
60	Standard Tool & Machine, Inc. Attn: Mr. Merritt B. Havens 1313 West Beardsley Avenue Elkhart, IN 46514	D D	3544 3542	Dry		(18) Machinery and Machinery Products Mfg.		

CLASSIFICATION AND PRETREATMENT STANDARDS (CONTINUED)

CLASSIFICATION						PRETREATMENT STANDARDS		
FILE NO.	NAME ADDRESS TELEPHONE NUMBER	STANDARD INDUSTRIAL CLASSIFICATION		WET OR DRY	MAJOR OR MINOR	CATEGORY	CATEGORICAL	1) FEDERAL 2) STATE OR 3) LOCAL
		DIV.	CODE NO.					PROHIBITED DISCHARGE
61	Starr Machine 1620 Middlebury Street Elkhart, IN 46514	D	3544			(18) Machinery and Machinery Products Mfg.		
62	Strong Steel Attn: Mr. Earl Messmore 1401 Concord Elkhart, IN 46514	D	344-	Dry		(18) Machinery and Machinery Products Mfg.	 <p>PROHIBITED DISCHARGE STANDARDS (SECTION 2.2.1)</p> <p>ELKHART SEWER USE ORDINANCE REQUIREMENTS (SECTION 2.3 AND APPENDIX B)</p> <p>RESPECTIVE CATEGORICAL PRETREATMENT STANDARDS ONCE PROMULGATED (SECTION 2.2.2)</p>	
63	Taylor Products Division Attn: H.Z. Bogner 1100 West Beardsley Elkhart, IN 46514	D I	3469 7692	Wet		(18) Machinery and Machinery Products Mfg.		
64	Teledyne Metal Forming Attn: L.E. BeMiller 1937 Sterling Avenue P.O. Box 757 Elkhart, IN 46514	D D	3356 3312	Wet		(18) Machinery and Machinery Products Mfg.		
65	Tenneco Chemicals Attn: Mr. John Wise 1500 West Lusher Avenue Elkhart, IN 46514	D	2821	Dry		(14) Plastic Synthetic Resin and Manmade Fiber Mfg.		
66	Thermco Products Attn: Mr. John Tedstrom 1800 Fieldhouse Elkhart, IN 46514	D	3079	Dry		(14) Plastic Synthetic Resin and Manmade Fiber Mfg.		

CLASSIFICATION AND PRETREATMENT STANDARDS (CONTINUED)

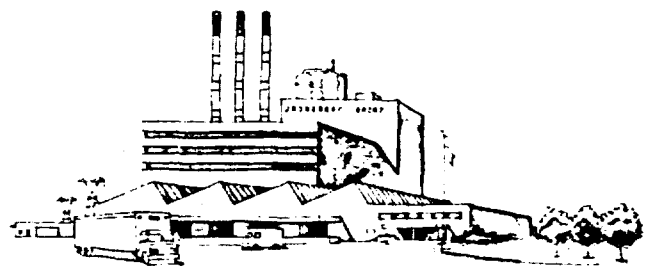
CLASSIFICATION							PRETREATMENT STANDARDS		
FILE NO.	NAME ADDRESS TELEPHONE NUMBER	STANDARD INDUSTRIAL CLASSIFICATION		WET OR DRY	MAJOR OR MINOR	CATEGORY	CATEGORICAL	1) FEDERAL 2) STATE OR 3) LOCAL	PROHIBITED DISCHARGE
		DIV.	CODE NO.						
67	Thompson Mfg. Company, Inc. Attn: Mr. Richard A. Thompson 318 Elm Street Elkhart, IN 46514	D	345-	Dry		(18) Machinery and Machinery Products Mfg.			
68	Truth Publishing Co. Attn: Mr. David L. Klahr 421 So. Second Street Elkhart, IN 46514	D	2711	Wet		(11) Paint and Ink Formulation and Printing			
69	Walter Piano Company, Inc. 700 W. Beasley Avenue Elkhart, IN 46514	D	3931			Machinery and Machinery Products Manufacturing			
70	Whitehall Laboratories Attn: Mr. Joe Breit 1919 Superior Street Elkhart, IN 46514	D	283-	Wet	Major	(17) Miscellaneous Chemicals			

↑
PROHIBITED DISCHARGE
STANDARDS (SECTION 2.2.1)

ELKHART SEWER USE
ORDINANCE REQUIREMENTS
(SECTION 2.3 AND APPENDIX B)

↓
RESPECTIVE CATEGORICAL
PRETREATMENT STANDARDS
ONCE PROMULGATED
(SECTION 2.2.2)
↓

**"Sampling and
Monitoring Requirements"**



Attachment E

SAMPLING AND MONITORING REQUIREMENTS

FILE NO.	NAME ADDRESS TELEPHONE NUMBER	MEET- ING A*,B**	TO BE FURTHER INVESTI- GATED	TO BE SAMPLED	PARAMETERS TO BE ANALYZED				MONITOR- ING REQUIRE- MENTS
					PARAMETER	SITE	MODE	RESULTS	
1	AACOA Attn: Mr. Jerry Formsma 727 Randolph Street Elkhart, IN 46514	A	Yes	Yes	Flow SS BOD ₅ pH		Composite		
2	Adams and Westlake Company Attn: Mr. Russell O. Anderson 1025 N. Michigan Street Elkhart, IN 46514	A B	Yes	Yes	Flow COD Cadmium Copper Lead Nickel Zinc Cyanide Toluene Trichloroethylene		Composite		
3	Anco Products, Incorporated Attn: Mr. Daniel Singer 2500 South 17th Street Elkhart, IN 46514		Yes						
4	Anderson Silver Plating Co. Attn: Mr. Mike Anderson 541 Industrial Parkway P.O. Box 961 Elkhart, IN 46514	A B	Yes	Yes	pH COD SS Cadmium Chromium Copper Lead Nickel Zinc Cyanide		Composite		
5	W.T. Armstrong Co., Inc. Attn: Mr. Al Singleton 1000 Industrial Parkway P.O. Box 787 Elkhart, Indiana 46514	B	Yes	Yes	pH COD Cadmium Chromium Copper Lead Nickel Zinc Cyanide Flow Trichloroethylene		Composite		
6	Atlas Chemical Milling Attn: Mr. Herman Graboyes 1627 W. Lusher Avenue Elkhart, IN 46514	A	Yes	Yes	pH COD Cadmium Chromium Copper Lead Nickel Zinc SS Trichloroethylene		Composite		

A* ATTENDED PUBLIC INDUSTRIAL PRETREATMENT MEETING ON JUNE 26, 1979. B** MEETING RECOMMENDED.

SAMPLING AND MONITORING REQUIREMENTS (CONT.)

FILE NO.	NAME ADDRESS TELEPHONE NUMBER	MEET- ING A*, B**	TO BE FURTHER INVESTI- GATED	TO BE SAMPLED	PARAMETERS TO BE ANALYZED				MONITOR- ING REQUIRE- MENTS
					PARAMETER	SITE	MODE	RESULTS	
7	Atlas Steel Rule Die, Inc. Attn: Mr. S. Ray Miller, Jr. 2000 Middlebury Street Elkhart, Indiana 46514		Yes						
8	J.J. Babbitt Company, Inc. Attn: Mr. Eugene B. Reglein 1505 West Beardsley Elkhart, IN 46514		Yes						
9	Babcock & Wilcox Company Attn: Robert Schneider 935 Plum Street PO Box 1303 Elkhart, IN 46514	B	Yes	Yes	Flow BOD ₅ COD SS Phosphorus Cadmium Chromium Copper Lead Nickel Zinc		Composite		
10	Vincent Bach Company Attn: Mr. Cliff Cartwright 500 Industrial Parkway Elkhart, IN 46514	A B	Yes	Yes	Flow COD SS Cadmium Chromium Copper Nickel Zinc Cyanide Trichloroethylene		Composite		
11	Barger Packaging Corporation Attn: Mr. Don Hoffman 1511 West Lusher Avenue P.O. Box 249 Elkhart, IN 46514		Yes						
12	E.K. Blessing Co., Inc. 1301 Beardsley Avenue Elkhart, Indiana 46514								

SAMPLING AND MONITORING REQUIREMENTS (CONT.)

FILE NO.	NAME ADDRESS TELEPHONE NUMBER	MEET- ING A*,B**	TO BE FURTHER INVESTI- GATED	TO BE SAMPLED	PARAMETERS TO BE ANALYZED				MONITOR- ING REQUIRE- MENTS
					PARAMETER	SITE	MODE	RESULTS	
13	CTS Corporation (Plastics Plant) Attn: Mr. Paul Wittman 905 North West Boulevard Elkhart, IN 46514	A B	Yes	Yes	Flow COD Cadmium Chromium Copper Lead Nickel Zinc Cyanide Toluene Trichloroethylene Trichloroethane		Composite		
14	CTS of Elkhart, Inc. (Main Plant) Attn: Mr. Paul Wittman 1142 W. Beardsley Avenue Elkhart, IN 46514	A B	Yes	Yes	Flow COD Cadmium Chromium Copper Lead Nickel Zinc Cyanide Toluene Trichloroethylene Trichloroethane		Composite		
15	Conrail Corporation Attn: Mr. John Dinehart Robert Young Yard Elkhart, IN 46514	A B	Yes	Yes	Flow BOD ₅ SS Phosphorus		Composite		
16	Dometic Sales Corporation Attn: R.A. Neitzke 2320 Industrial Parkway P.O. Box 490 Elkhart, IN 46514	B	Yes	Yes	Flow Ammonia		Composite		
17	Domore Office Furniture Attn: J.O. McNamee 2400 Sterling Avenue P.O. Box 1289 Elkhart, IN 46514		Yes						
18	Don's Printing Service Attn: Mr. Don Scharrer 1621 West Beardsley P.O. Box 1131 Elkhart, IN 46514		Yes						

A*ATTENDED PUBLIC INDUSTRIAL PRETREATMENT MEETING ON JUNE 26, 1979. B**MEETING RECOMMENDED.

SAMPLING AND MONITORING REQUIREMENTS (CONT.)

FILE NO.	NAME ADDRESS TELEPHONE NUMBER	MEETING A*, B**	TO BE FURTHER INVESTIGATED	TO BE SAMPLED	PARAMETERS TO BE ANALYZED				MONITORING REQUIREMENTS
					PARAMETER	SITE	MODE	RESULTS	
19	Durakool, Incorporated Attn: Mr. George Bucklen 1010 North Main Street P.O. Box 280 Elkhart, IN 46514	A B	Yes	Yes	Flow COD Arsenic Chromium Lead Mercury Zinc Nickel Nitrobenzene Naphthalene Chlorinated	Ethanes	Composite		
20	Elixir Industries Travelers Division Attn: Mr. William McKinney 2040 Toledo Road Elkhart, IN 46514	B	Yes	Yes	Cadmium Chromium Copper Lead Nickel Zinc		Composite		
21	Elkhart Brass Mfg. Co., Inc. Attn: Mr. R.F. Holtz Sr. 1302 W. Beardsley Avenue P.O. Box 1127 Elkhart, IN 46514	B	Yes	Yes	Cadmium Chromium Copper Lead Nickel Zinc Trichloroethane		Composite		
22	Elkhart Bridge and Iron Co. Attn: Mr. Martin E. Miller 929 North Michigan Elkhart, IN 46514	B	Yes						
23	Elkhart Foam Products, Co. Attn: F.M. Lima 603 Industrial Parkway Elkhart, IN 46514	A	Yes	Yes	COD pH Cyanide		Composite		
24	Elkhart Foundry and Machine Attn: Mr. Joseph Leaverton 318 South Elkhart Avenue P.O. Box 668 Elkhart, IN 46524	A	Yes	Yes	COD pH Chromium Copper		Composite		

SAMPLING AND MONITORING REQUIREMENTS (CONT.)

FILE NO.	NAME ADDRESS TELEPHONE NUMBER	MEET- ING A*,B**	TO BE FURTHER INVESTI- GATED	TO BE SAMPLED	PARAMETERS TO BE ANALYZED				MONITOR- ING REQUIRE- MENTS
					PARAMETER	SITE	MODE	RESULTS	
25	Elkhart General Hospital 600 East Boulevard Elkhart, IN 46514		Yes						
26	Elkhart Products Corporation Attn: Mr. Robert H. Todd 1255 Oak Street P.O. Box 1008 Elkhart, IN 46514	A B	Yes	Yes	COD pH Chromium Copper Lead		Composite		
27	Elkhart Rubber Works, Inc. Attn: Mr. Robert T. Duffy 1629 Oakland Avenue P.O. Box 987 Elkhart, IN 46514	A	Yes	Yes	Flow COD Lead Zinc Dichloroethylene Toluene		Composite		
28	Elkhart Tool and Die, Inc. Attn: Mr. Brent Brown 2400 South 15th Street Elkhart, IN 46514		Yes						
29	Excel Corporation Attn: Mr. Christofer Dersch 1120 North Main Street Elkhart, IN 46514	A B	Yes	Yes	Flow COD Nickel Zinc Copper Toluene Chlorinated ethanes		Composite		
30	Federal Paper Board Co., Inc. Attn: Mr. Jake Weaver P.O. Box 1007 Elkhart, IN 46514	B	Yes	Yes	Cadmium Chromium Copper Lead Nickel Zinc		Composite		

SAMPLING AND MONITORING REQUIREMENTS (CONT.)

FILE NO.	NAME ADDRESS TELEPHONE NUMBER	MEET- ING A*, B**	TO BE FURTHER INVESTI- GATED	TO BE SAMPLED	PARAMETERS TO BE ANALYZED				MONITOR- ING REQUIRE- MENTS
					PARAMETER	SITE	MODE	RESULTS	
31	Federal Press Company Attn: Ms. Regina L. Baker 500 State Street P.O. Box 400 Elkhart, IN 46514		Yes						
32	Foamcraft, Incorporated Attn: J. Russell 900 Industrial Parkway Elkhart, IN 46514		Yes						
33	Franklin Press, Inc. Attn: Mr. Robert DeMeyer 400 West Crawford Street Elkhart, IN 46514		Yes						
34	Hermaseal Incorporated Attn: Mr. George Bucklen 1106 LaFayette Elkhart, IN 46514	B	Yes	Yes	pH COD Cadmium Chromium Copper Lead Nickel Zinc		Composite		
35	ILC Products Company, Inc. Attn: M. Mynsberge 1819 South 14th Street P.O. Box 338 Elkhart, IN 46514	A	Yes	Yes	Chromium Toluene		Composite		
36	IMC Products Company Attn: Mr. Jack Cook 2115 S. 17th Street PO Box 547 Elkhart, IN 46514		Yes						

SAMPLING AND MONITORING REQUIREMENTS (CONT.)

FILE NO.	NAME ADDRESS TELEPHONE NUMBER	MEET- ING A*,B**	TO BE FURTHER INVESTI- GATED	TO BE SAMPLED	PARAMETERS TO BE ANALYZED				MONITOR- ING REQUIRE- MENTS
					PARAMETER	SITE	MODE	RESULTS	
37	Ideal Plating Corporation Attn: Mr. William Thompson 1913 South 14th Street P.O. Box 74 Elkhart, IN 46514	A	Yes	Yes	pH COD SS Cadmium Chromium Copper Lead Nickel Zinc Cyanide		Composite		
38	Indiana Plastics, Inc. Attn: Mr. John Kruis 2221 Industrial Parkway Elkhart, IN 46514		Yes						
39	Instant Copy of Indiana Attn: Mr. Frank Lorentz 201 West Marion Street Elkhart, IN 46514		Yes						
40	J & K Oil Company, Inc. Attn: Mr. Richard Brotherson 901 Lafayette Street Elkhart, IN 46514		Yes						
41	Jessen Manufacturing Company 1409 W. Beardsley Elkhart, IN 46514		Yes						
42	Ken's Quality Print Shop 116 Harrison Street Elkhart, IN 46514		Yes						

SAMPLING AND MONITORING REQUIREMENTS (CONT.)

FILE NO.	NAME ADDRESS TELEPHONE NUMBER	MEET- ING A*,B**	TO BE FURTHER INVESTI- GATED	TO BE SAMPLED	PARAMETERS TO BE ANALYZED				MONITOR- ING REQUIRE- MENTS
					PARAMETER	SITE	MODE	RESULTS	
43	Kent Company Attn: R.A. Neitzke 2310 Industrial Parkway Elkhart, IN 46514		Yes						
44	Kiefer and Sons, Inc. Attn: Mr. Ray Kiefer 1613 Cassopolis Street Elkhart, IN 46514	B	Yes	Yes	pH COD Cadmium Chromium Copper Lead Nickel Zinc Cyanide		Composite		
45	L & J Press Corporation Attn: R.D. Mathias 1641 Sterling Avenue Elkhart, IN 46514		Yes						
46	Labour Pump Attn: Mr. William E. Barret 1607 Sterling PO Box 1187 Elkhart, IN 46514	B	Yes	Yes	pH Chromium Copper Lead Nickel Cyanide		Composite		
47	Madden Corporation Attn: Mr. James B. Madden 1317 Princeton Boulevard Elkhart, IN 46514		Yes						
48	McDowell Enterprises, Inc. Attn: Mr. William McDowell 2010 Superior Street P.O. Box 391 Elkhart, IN 46514	A B	Yes	Yes	pH COD SS Cadmium Chromium Copper Lead Nickel Zinc Cyanide Trichloroethylene		Composite		

SAMPLING AND MONITORING REQUIREMENTS (CONT.)

FILE NO.	NAME ADDRESS TELEPHONE NUMBER	MEET- ING A*B**	TO BE FURTHER INVESTI- GATED	TO BE SAMPLED	PARAMETERS TO BE ANALYZED				MONITOR- ING REQUIRE- MENTS
					PARAMETER	SITE	MODE	RESULTS	
49	Miles Laboratories, Inc. Attn: Mr. Elmer Hartgerink 1127 Myrtle Street Elkhart, IN 46514	A B	Yes	Yes	Flow BOD ₅ SS Benzene Cadmium Chromium Copper Lead Nickel Zinc		Composite		
50	Modern Printers & Duplicators Attn: Mr. Robert L. Fruchey 1400 Princeton Elkhart, IN 46514		Yes						
51	NIBCO Incorporated Attn: Mr. Walt Dintaman 500 Simpson Street Elkhart, IN 46514	A B	Yes	Yes	Flow BOD ₅ SS Phosphorus pH Ammonia Cadmium Chromium Copper Lead Nickel Zinc		Composite		
52	North Side Tool & Engineer Attn: 1731 Cassopolis Street Elkhart, IN 46514		Yes						
53	Philips Industries Dexter Axle/Roof Group 2030 South Main Street PO Box 250 Elkhart, IN 46514		Yes						
54	Pulp Products Corporation Attn: Mr. Phillip Eddy 800-C Industrial Parkway P.O. Box 476 Elkhart, IN 46514		Yes						

SAMPLING AND MONITORING REQUIREMENTS (CONT.)

FILE NO.	NAME ADDRESS TELEPHONE NUMBER	MEET- ING A*,B**	TO BE FURTHER INVESTI- GATED	TO BE SAMPLED	PARAMETERS TO BE ANALYZED				MONITOR- ING REQUIRE- MENTS
					PARAMETER	SITE	MODE	RESULTS	
55	Routson Brass Foundry, Inc. Attn: Mr. Robert Theirback 2652 South Main Street Elkhart, IN 46514		Yes						
56	Selmer Company Attn: Mr. Cliff Cartwright P.O. Box 310 1119-1120 North Main Street Elkhart, IN 46514	A B	Yes	Yes	Flow BOD ₅ SS Phosphorus Cadmium Chromium Copper Lead Nickel Zinc		Composite		
57	Selmers Attn: Mr. Cliff Cartwright 2100 Industrial Parkway Elkhart, IN 46514	A	No	No					None
58	Selmers Attn: Mr. Cliff Cartwright 2415 Industrial Parkway Elkhart, IN 46514	A	No	No					None
59	South Side Plating Works, Inc. Attn: Mr. Robert McDowell 2306 South Main Street Elkhart, IN 46514	A B	Yes	Yes	pH COD SS Cadmium Chromium Copper Lead Nickel Zinc Cyanide Trichloroethylene		Composite		
60	Standard Tool & Machine, Inc. Attn: Mr. Merritt B. Havens 1313 West Beardsley Avenue Elkhart, IN 46514		Yes						

SAMPLING AND MONITORING REQUIREMENTS (CONT.)

FILE NO.	NAME ADDRESS TELEPHONE NUMBER	MEET- ING A*, B**	TO BE FURTHER INVESTI- GATED	TO BE SAMPLED	PARAMETERS TO BE ANALYZED				MONITOR- ING REQUIRE- MENTS
					PARAMETER	SITE	MODE	RESULTS	
61	Starr Machine 1620 Middlebury Street Elkhart, IN 46514		Yes						
62	Strong Steel Attn: Mr. Earl Messmore 1401 Concord Elkhart, IN 46514		Yes						
63	Taylor Products Division Attn: H.Z. Bognar 1100 West Beardsley Elkhart, IN 46514	A	Yes	Yes	Flow Phosphorus Chromium Copper Zinc Chlorinated	ethanes	Composite		
64	Teledyne Metal Forming Attn: L.E. BeMiller 1937 Sterling Avenue P.O. Box 757 Elkhart, IN 46514	A	Yes						
65	Tenneco Chemicals Attn: Mr. John Wise 1500 West Lusher Avenue Elkhart, IN 46514		Yes						
66	Thermco Products Attn: Mr. John Tedstrom 1800 Fieldhouse Elkhart, IN 46514		Yes						

SAMPLING AND MONITORING REQUIREMENTS (CONT.)

FILE NO.	NAME ADDRESS TELEPHONE NUMBER	MEET- ING A*, B**	TO BE FURTHER INVESTI- GATED	TO BE SAMPLED	PARAMETERS TO BE ANALYZED				MONITOR- ING REQUIRE- MENTS
					PARAMETER	SITE	MODE	RESULTS	
67	Thompson Mfg. Company, Inc. Attn: Mr. Richard A. Thompson 318 Elm Street Elkhart, IN 46514		Yes						
68	Truth Publishing Co. Attn: Mr. David L. Klahr 421 So. Second Street Elkhart, IN 46514		Yes						
69	Walter Piano Company, Inc. 700 W. Beardsley Avenue Elkhart, IN 46514		Yes						
70	Whitehall Laboratories Attn: Mr. Joe Breit 1919 Superior Street Elkhart, IN 46514	A B	Yes	Yes	Flow Copper Zinc		Composite		

SDMS US EPA REGION V

FORMAT- OVERSIZED - 5

IMAGERY INSERT FORM

The item(s) listed below are not available in SDMS. In order to view original document or document pages, contact the Superfund Records Center.

SITE NAME	MAIN STREET WELL FIELD		
DOC ID #	162097		
DESCRIPTION OF ITEM(S)	INDUSTRIAL LOCATION MAP		
REASON WHY UNSCANNABLE	<u> X </u> OVERSIZED	OR	<u> </u> FORMAT
DATE OF ITEM(S)	12/79		
NO. OF ITEM	1		
PHASE	REM		
PRP	RMD		
PHASE (AR DOCUMENTS ONLY)	<u> </u> Remedial <u> </u> Removal <u> </u> Deletion Docket <u> </u> AR <u> </u> Original <u> </u> Update # <u> </u> Volume <u> </u> of <u> </u>		
COMMENT(S)			